MARCH [illegible]

FINANCE & DEVELOPMENT

A QUARTERLY PUBLICATION OF THE INTERNATIONAL MONETARY FUND AND THE WORLD BANK

Central Banking & Reforms

Interview: **Michel Camdessus**

Special Section: **CGIAR**

FINANCE & DEVELOPMENT is published quarterly in English, Arabic, Chinese, French, German, Portuguese, and Spanish by the International Monetary Fund and the International Bank for Reconstruction and Development, Washington, DC 20431, USA.

Opinions expressed in articles and other materials are those of the authors; they do not necessarily reflect Fund or Bank policy.

Second class postage is paid at Washington, DC and at additional mailing offices. English edition printed at Lancaster Press, Lancaster, PA. Postmaster: please send change of address to *Finance & Development*, 700 19th Street, NW, Washington, DC 20431. English edition ISSN 0015-1947.
Telephone: (202) 623-8300 • Fax Number: (202) 623-4738.

Shuja Nawaz
EDITOR

Laura Wallace
ASSISTANT EDITOR

Gita Bhatt
EDITORIAL OFFICER

Luisa Watson
ART EDITOR

ADVISORS TO THE EDITOR
Nancy Birdsall
Peter Clark
K. Burke Dillon
Stephen Eccles
Richard Hemming
Pierre Landell-Mills
Anthony Lanyi
Johannes Linn
Gobind Nankani
Orlando Roncesvalles
Joanne Salop
Brian Stuart

NEW FROM THE INTERNATIONAL MONETARY FUND

Fiscal Policies in Economies in Transition

edited by Vito Tanzi

The collapse of central economic planning in many countries and the breakup of the Soviet Union have put into disarray the systems of government revenues and expenditures in these countries. This collection of 16 papers analyzes the strengths and weaknesses of fiscal policies of the old system of central planning and suggests ways to revitalize those policies in the newly emerging market economies.

Available in English. vi + 359 pp. ISBN 1-55775-191-9. (paper) 1992. US$24.50.

To order, please write or call:

International Monetary Fund
Publication Services
Box FD-201
700 19th Street, N.W.
Washington, D.C. 20431 U.S.A.

Telephone (202) 623-7430
Telefax: (202) 623-7201
Cable Address: INTERFUND

American Express, MasterCard and VISA credit cards accepted.

FINANCE & DEVELOPMENT

March 1992 • Volume 29 • Number 1

A QUARTERLY PUBLICATION OF THE INTERNATIONAL MONETARY FUND AND THE WORLD BANK

Reflections on the IMF *Michel Camdessus* 2

The Challenges of Development *Lawrence Summers* 6

Central Banking

Central Banking Reforms in Formerly Planned Economies *V. Sundararajan* 10

The Reform of Senegal's Banking System *Mario de Zamaróczy* 14

Reform of Monetary Policy Instruments *Chorng-Huey Wong* 16

Central Bank Independence *Marta Castello-Branco & Mark Swinburne* 19

Progress Report on Heterodox Stabilization Programs *Miguel Kiguel & Nissan Liviatan* 22

The CGIAR: Investing in Agricultural Research 25

New Directions for the CGIAR *Alexander von der Osten-Sacken* 26

Challenges for Global Agricultural Research *Robert Blake* 30

Managing the CGIAR *Selcuk Ozgediz* 32

Biotechnology and the Developing World *Kerri Wright Platais & Michael Collinson* 34

Voluntary Market Financing for Latin America *Mohamed El-Erian* 38

Innovations in Debt Relief: The Paris Club *Thomas Klein* 42

Assessing a Country's Debt Burden *Przemyslaw Gajdeczka* 44

FDI

Facilitating Foreign Investment *Guy Pfeffermann* 46

MIGA: Up and Running *Laura Wallace* 48

World Economy in Transition: **Recent Trends in FDI for the Developing World** 50

Why Official Export Promotion Fails *Donald Keesing & Andrew Singer* 52

Educating Girls *Rosemary Bellew, Laura Raney, & K. Subbarao* 54

Books

An American Trade Strategy — Options for the 1990s edited by Robert Lawrence and Charles Schultze, *The World Trading System at Risk* by Jagdish Bhagwati, *The Challenge of Free Trade* by Alan Oxley, and *Making Free Trade Work* edited by Peter Morici *Patrick Low* 57

Taking Money Seriously by David Laidler *James Boughton* 58

Politics and the African Development Bank by Karen Mingst *Stephen O'Brien* 58

Trade, Planning and Rural Development edited by Azizur Rahman Khan and Rehman Sobhan *K. Subbarao* 59

Books in Brief 60

Other Books Received 60

Letters 60

The Editor welcomes views and comments from readers on the contents of the journal. The contents of Finance & Development *may be quoted or reproduced without further permission. Due acknowledgement is requested.*

READEX
FICHE

INTERVIEW

Reflections on the IMF

The Managing Director, Michel Camdessus, speaks with Finance and Development

THE FORMER SOVIET UNION AND EASTERN EUROPE

How soon do you see members of the former Soviet Union becoming full and participating members of the IMF?

As soon as we can complete the work needed for membership to be effected. The staff are doing an extraordinary job in pressing ahead as rapidly as possible. Previous membership applications have taken from six months to two years. To complete the process in a few months will be a great achievement. But, of course, we also need the cooperation of the authorities in providing information.

Is the IMF adequately funded to sustain lending to so many new members?

Even before the recent surge in application for membership, we felt the urgent need for more resources. A majority of our membership has already agreed to the proposed increase in our "quotas" or subscriptions. For the new quotas to go into effect, we need the consents of members having not less than 70 percent of the total of quotas on May 30, 1990, and we have reached this total. However, no increase in quotas shall become effective until the third amendment of the Articles of Agreement has been accepted by members having 85 percent of the total voting power. We have not yet achieved that majority. It is important for this increase to go through and quickly. As new members come on board, our financial and human resources are being put under considerable strain. I do not see this pressure easing in the near future.

I should also add that a review of quotas provides an important opportunity to adjust members' quotas to reflect changes in their relative economic position in the world economy, in turn determining inter alia, members' voting power, shares in allocation of SDRs, and representation at the Executive Board. This is fundamental. It is also of great importance that the Fund be adequately financed through members' capital subscriptions so that the Fund can impart confidence to its members to pursue policies that are open and not harmful to national or international prosperity—a fundamental aim of this institution, as stated in Article I of our Articles of Agreement.

How would you sum up the early experience with lending to Eastern European states?

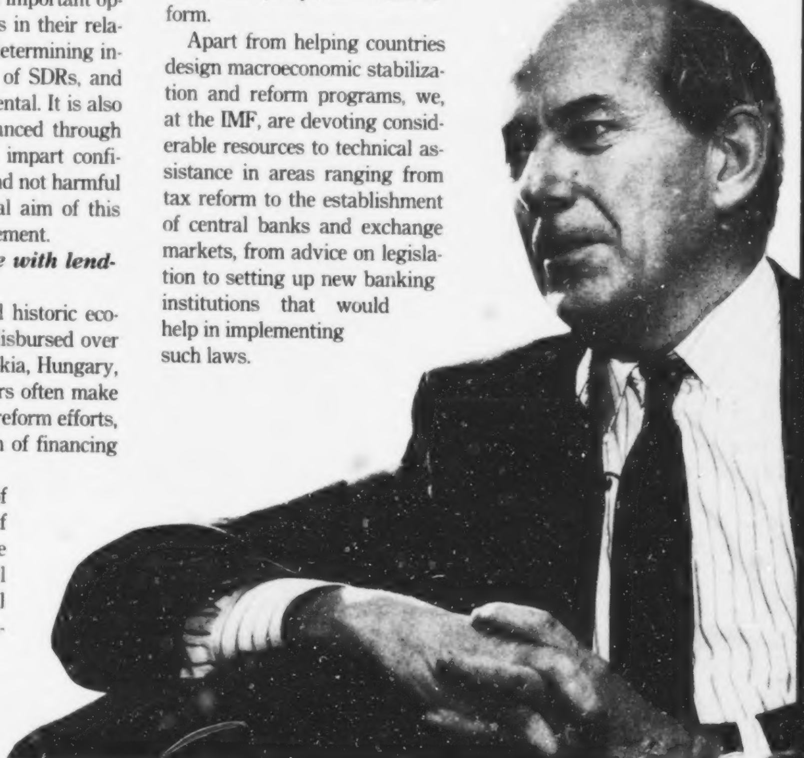
We have become partners in an unprecedented and historic economic and political transformation. We have already disbursed over $4 billion to five member states (Bulgaria, Czechoslovakia, Hungary, Poland, and Romania) during 1991. Since other creditors often make their assistance depend on Fund support for countries' reform efforts, our resources have helped to catalyze up to $20 billion of financing from other sources.

It is too soon to sum up definitively the experience of reform and adjustment in these countries—the process of shifting to fully fledged market economies can only take place over a number of years. During that time there will be a continuing need for support from the international community, in particular through an opening up of industrial country markets to trade. However, we can certainly look back on the first stage of reform in 1990–91 and draw some preliminary conclusions.

The most striking point is the firm commitment that governments have demonstrated to the often difficult measures involved in opening up their economies and removing the extensive controls that had stifled efficiency in the past. The initial shock to output has been large, exacerbated by the collapse of trade among the partners of the former CMEA (Council for Mutual Economic Assistance) and the temporary jump in oil prices in 1990. At the same time, progress on inflation has been significant in most cases, notably in Poland, the Czech and Slovak Federal Republic (CSFR), where prices are virtually stable, and in Hungary. Moreover, some countries have begun successfully to shift exports to new markets, especially Hungary and Poland, and, more recently, Bulgaria, and there are some signs of a pick-up of activity in the private sector. Access to private capital, including direct foreign investment, was also enhanced in 1991, notably in CSFR and Hungary.

In all of the countries, very wide-ranging structural reforms are being implemented. It would, of course, be desirable if these could be speeded up so as to encourage the supply response that will lay the basis for higher living standards in these countries. In addition to the liberalization of prices and external trade and payments that has taken place across the region, reforms are underway to restructure and privatize enterprises, reform the financial system, and, in some cases, implement land reform.

Apart from helping countries design macroeconomic stabilization and reform programs, we, at the IMF, are devoting considerable resources to technical assistance in areas ranging from tax reform to the establishment of central banks and exchange markets, from advice on legislation to setting up new banking institutions that would help in implementing such laws.



These countries and others—for example, the members of the former Soviet Union—also need technical help and training. To meet the needs of this whole region, our IMF Institute is already gearing up for a training facility in Vienna. Meanwhile, technical assistance missions are proceeding at a fast pace.

AFRICA

Most of the IMF's clients are in Africa. These countries need development assistance, advice, and balance of payment support. But many still do not have sufficiently strong institutions or adequately trained manpower to manage their economies and businesses. How far can IMF support help solve their problems?

Regrettably, "Afro-pessimism" has become almost fashionable. As far as Africa is concerned, I do not see the glass as half-empty. I see it as half-full. Or perhaps more than half-full. The IMF is deeply involved with a growing number of African countries. Indeed, it began lending heavily during the 1980s. Adjustment is an extremely difficult process, and given the way so many of these countries continued to be buffeted by external shocks, it is not surprising that some of these efforts were not as successful as had been hoped. But many of the countries are now resuming their adjustment efforts. We are continuing to lend to countries that design and implement strong economic recovery programs. But we recognize that sound policy making needs to be followed up with sound implementation and the participation of all segments of the population in economic processes and decisions. We train technical experts, send resident representatives to provide advice, and give financial assistance to help stabilize economies. The aim is to help countries build national analytical and research capabilities. Many external agencies are involved in this direction—particularly our sister institution, the World Bank.

More open political systems increase the prospect that sound policies will be sustained. As such, they are a helpful or perhaps even a necessary ingredient of structural reforms combined with sound macro policies. It is good to see that more and more countries in Africa and elsewhere now recognize the need for broad participation in governmental economic decision making.

With the recent surge of interest in Eastern Europe and the former Soviet Union, many fear that Africa and other developing regions may get short shrift. How will you avoid this?

No part of the world, neither Africa nor Latin America, will get short shrift. Look at what we are doing now. In the first three months of 1992, we have committed more than $5 billion for Latin America. We now have the support of the entire membership for broadening the list of countries that are eligible for concessional financing under ESAF [the enhanced structural adjustment facility]. This would be done by adding 11 countries, many of which are in Africa, but other regions are also represented. Indeed, a majority of countries receiving ESAF financing are in Africa. This illustrates to the world that we are not shifting resources, but, on the contrary, developing full steam. We currently have lending operations in more than 50 countries and are negotiating with another 25 or so. By next year, we may well have over 90 countries with IMF-supported programs or in the process of setting up such arrangements.

Is there a net negative flow of resources from Africa to the IMF?

This debate on negative flows does not make great sense. It ignores a key feature of IMF lending—its temporary character. The IMF lends to countries experiencing temporary balance of payments problems, and in due course it is expected that those loans will be repaid as the countries recover. In doing so the countries reconstitute their drawing (borrowing) rights at the IMF and can borrow again if they encounter new balance of payments problems.

In 1990 there was a net repayment of about SDR 400 million from Africa, though last year there was net lending of more than SDR 100 million. There are also interest payments, though in the case of low-income countries most of their borrowing from us these days is at highly concessional rates so that these costs are declining as their outstanding borrowings gradually shift from market-rate financing.

We are looking forward to doing much more in Africa. But we need sound programs from the countries and their willingness to embark with resolve in the right policy direction. Whenever that happens, we are ready to meet their requests.

MILITARY SPENDING

Many people were surprised when you raised the issue of reduction of military spending by developing countries. Others praised your bold initiative. What made you take this approach?

In a world of scarce resources, we would be derelict in our duty to our membership if we were to ignore the hemorrhage of financing from productive to unproductive sectors of national economies. That is what prompted me to raise the issue of excessive military spending in public discussions, as did Mr. Conable at the World Bank. We seem to have struck a nerve! Suddenly the topic is becoming the subject of discussion across the world, particularly in borrowing countries.

Your critics say that this approach is only used against poor or borrowing nations but not against big military or wasteful spenders who are either not borrowers or are net creditors to the IMF and that this will only add to conditionalities on IMF lending.

I have spoken often on this issue. It is not our aim or policy to comment on what may be the optimal level of defense spending in any country. That is a complex value judgment ruled by many factors, including regional security issues. But, let us be clear. Security, for any country, comes from peace, stability, and a sound productive economy. But, of course, governments are responsible for the survival of their nations. In a dangerous world, they have to evaluate carefully what constitutes adequate and appropriate national security. And this is a sovereign decision of governments.

The major global powers have already announced plans to cut back their military spending. In the context of the increased need for global savings, this is a welcome move. The Interim Committee has placed this concern on our agenda and we will pursue it with all members—borrowers and creditors, alike—for example, during our routine Article IV consultations.

Military spending is not a performance indicator, nor is it used as a condition on the use of IMF resources. However, we do feel it is important for countries that come to us for help to understand the scope and economic effects of their military spending. I am hopeful that with the end of the Cold War and the voluntary reductions in military outlays by the major powers, global tensions will ease and that this will produce a cascade effect reducing tensions between their respective allies in different regions of the world and thereby creating opportunities to decrease military expenditure without weakening national security. On my recent visit to India and Pakistan, for example, I found a receptive public audience, when I mentioned the possibility of strong economic growth in the absence of regional tensions and the balanced reduction of military spending by those two neighbors in the context of regional security

POVERTY

What steps has the IMF taken to protect the poor during difficult adjustment programs undertaken by countries with financial help from the IMF?

We know that some vulnerable groups suffer during adjustment programs in the short run, unless you take steps to insulate them during the period of reform. So, we try to identify these groups and the effects of changes in pricing of essential foods and services, as well as other policies, on them. That way, in cooperation with other agencies, we try to help countries devise measures to protect the poor. Targeted, short-term subsidies, for instance, help ensure food supplies to the poorest segments in populations.

Your critics have charged the IMF with being responsible for the deaths of children, as a result of what they term "harsh" economic programs that restrict access of the poor and vulnerable groups to food and basic necessities. How do you respond?

This accusation is based on misinformation. Mismanagement of national economies hurts the poorest most. Our actions are aimed at correcting this situation. But you don't correct in 15 months the consequences of 15 years of mismanagement.

THE ENVIRONMENT

You have noted the need for the IMF to be aware of environmental issues in various statements in recent years. How far has the IMF translated these thoughts into actions?

Following discussions by the IMF Executive Board early in 1991, the IMF staff has been examining two basic issues with a view to facilitating the examination of relevant environmental issues in the course of their normal analysis and advice functions. The first issue relates to the way implementation of IMF-supported policies can affect the environment. The second relates to the manner in which implementation of environmental policies can affect the design of IMF-supported policies. Studies on the first issue will soon be available to all IMF staff and other interested parties. Work on the second issue is underway.

The studies suggest that IMF-supported policies (1) assist member countries restore financial and macroeconomic stability, creating the conditions for sustainable economic growth, which helps remove the pressure to despoil the environment; and (2) these policies tend to have positive environmental effects by eliminating or reducing distortions on environmentally harmful inputs, such as subsidies on fossil fuels, chemical fertilizers, and pesticides. In this way, recent concern with environmental protection has provided additional arguments for pursuing sound economic policies.

The IMF has recently established a small unit that is in charge of compiling and disseminating environmental information on member countries. Our staff are cooperating with other agencies in preparing national accounts that measure the depletion of natural resources, and they continue to do research in the important area of the effects of fiscal policy on resource use and the environment.

ESAF

Are you satisfied with the growth of lending under the concessional enhanced structural adjustment facility?

So far, 19 countries have used resources under the ESAF; discussions toward an arrangement have been initiated with several others. I am confident that the Executive Board will soon expand the list of countries eligible for the ESAF by another 11. By the end of this year, we could have as many as 40 ESAF programs in operation, provided the countries are ready to take decisive action.

While lessons are still being drawn from the experience with ESAF programs, we are encouraged that substantial economic gains have been made in those countries that have sustained convincingly strong programs of policy reforms. The stronger the reform efforts, the better the results have been. Indeed, growth rates in these countries have almost doubled from their level before the ESAF programs. And this success seems to be influencing the attitudes of countries that have not yet adopted such programs.

The question is often raised: Since the roles of the IMF and the World Bank appear to be converging, why not make them into one organization? Why not?

Because their basic mandates are, as intended by their founders, distinct and their operations are still quite different.

The IMF remains dedicated to the promotion of economic conditions conducive to growth, price stability, and balance of payments sustainability.

Under this overall objective, we are first required to exercise surveillance on a continual basis over the performance of all members, both developed and developing. Second, we are empowered to provide temporary balance of payments financing to members—all our members—to help them to strengthen their external position without resorting to measures destructive of national or international prosperity.

In carrying out this dual role, we focus on the aggregate aspects of macroeconomic policies and their related instruments. It is this dual role and our macroeconomic focus that distinguish the Fund from the Bank.

The Bank has the objective of promoting economic growth and conditions conducive to efficient resource allocation in its borrowing members, which it pursues through investment lending and structural adjustment lending. Thus the Bank has focused on development strategies, sector and project investments, and related sectoral aspects in those countries.

It should be emphasized that both institutions have a common goal of promoting sustained growth and development in member countries. But the Bank is a development institution, while the IMF is a monetary institution.

GLOBAL COOPERATION

How has the growing presence and role of the Group of Seven industrial nations in the international monetary sys-

tem affected the IMF's role?

In many ways, the existence of the Group of Seven signifies the awareness of these countries of global interdependence and additional interest in achieving policy coordination. For that reason, it does not detract from the IMF's role—on the contrary, it enhances it, since those countries, like all our members, rely heavily on our work. They rely on our information and advice before, during, and after their ministerial and summit meetings. I am invited, in a personal capacity, to attend ministerial meetings to assist in discussions on economic surveillance, and more recently on issues such as help to the former Soviet republics.

Whatever the role of these important groupings, the role of the Interim Committee remains absolutely essential, since it provides us with the major orientation for our actions vis-à-vis the international monetary system. The Interim Committee is a unique institution. It provides a setting for the 22 key ministers of finance and central bankers of the world to work together in the framework of the IMF. They have been able, for instance, to play a decisive role in the solution of the debt crisis and, equally important, in elaborating progressively a global consensus on an economic doctrine. One of the most reassuring features of the present universe is the fact that now, after the so-called Silent Revolution, everybody recognizes that what we are doing is on the right lines, and that there is no viable alternative economic policy.

How do you see the global trading system emerging in the aftermath of the Uruguay Round? Will the new regional trading blocs counteract multilateral trade arrangements?

This Trade Round has taken a long time. But the issues that it is tackling are thorny and I am glad that participants managed to hammer out agreements on many of these issues and that they have agreed to accept GATT Director-General Dunkel's December 1991 text as a basis for the final negotiations.

To me the situation is quite simple: Today the world depends on a free and open trading system. Countries operate in a global market. Experience has shown that you cannot insulate national economies or sectors without harming your own economic interests or increasing economic costs for your own citizens.

Regional trading zones are, of course, becoming more important and could undermine the world trade system if they become inward looking. However, they can also be a force for trade liberalization, so long as they do not become an obstacle to the legitimate trading interests of nonmembers. A successful conclusion of the Uruguay Round would greatly contribute to achieving the ultimate goal of an open, multilateral trading system.

BEYOND THE DEBT DECADE

Your first term saw the end of the Decade of Debt. How did this happen, and what role did the IMF play in resolving the debt crisis?

The debt crisis has been blunted but not yet solved. Many countries—including some of the largest debtors—have made great strides toward resolving their problems, in some cases through officially supported debt reduction schemes.

The IMF's contribution to resolving the debt problem goes beyond the direct financial support that has been provided. It has played a critical role in fostering good policies, open markets, and financial flows from creditors. We have also encouraged official and private creditors to work in concert to provide breathing space for borrowing countries to establish policies oriented toward both adjustment and growth. And when it appeared that such an initiative was indispensable for addressing the issue of the debt overhang as a structural impediment to growth for many countries, we actively proposed and helped the implementation of the concept of debt reduction.

Has the Paris Club moved far enough and fast enough to help reduce official debt burdens?

The Paris Club has given increasing attention to the debt problems of both low-income and lower middle-income countries that are heavily indebted to official lenders. With deeper concessions and the improved prospects for a lasting solution to debt problems, we hope to see countries that are heavily indebted to bilateral creditors—for example in Africa—regain normal relations with their creditors, and we hope to see the creditors showing flexibility in going beyond the present terms, if needed.

It is very important that concessions on debt not be offset by reductions in new flows, so that debtor countries are able to establish policies oriented toward both adjustment and growth. On the contrary, we expect to see the same outcome for the poorest countries as has been achieved in some middle-income countries—debt reduction would be an important part of a well-conceived global program for adjustment; instead of interrupting financial flows, it would create conditions for those countries to recover and obtain new flows.

LOOKING FORWARD

Looking forward to the next five years, your second term as Managing Director, have you reformulated or sharpened your aims in any way?

No. The only aims I have are those defined by Article I of the Articles of the IMF. I always carry in my pocket the text of Article I that I so frequently show to people all over the world. The purposes of the IMF defined in this Article suffice for me as a program. No more but no less, particularly at a time when we may soon have 90 countries lining up for IMF support, among them 15 countries from the former Soviet Union. Add to this the unfinished agenda of the debt strategy and our efforts to help create new growth opportunities in Africa. This is a full agenda! So, I have not had to reconsider my program upon starting my second term. We will continue our work and I am confident that this institution and its sister institution on the other side of the street—the World Bank—will do an extremely good job in facing all these challenges.

I am impressed by the growing membership of these institutions and by the fact that at each key juncture during the past few years, each time a major problem emerged, the immediate response of the world community was to involve the Fund in finding a solution—be it the Eastern European countries in transition, the Gulf Crisis and its aftermath, or now help for the 15 republics of the Commonwealth of Independent States and the Baltic states. We are doing that with enthusiasm, but without reducing in any way our commitment to the other countries and regions. This is our program.

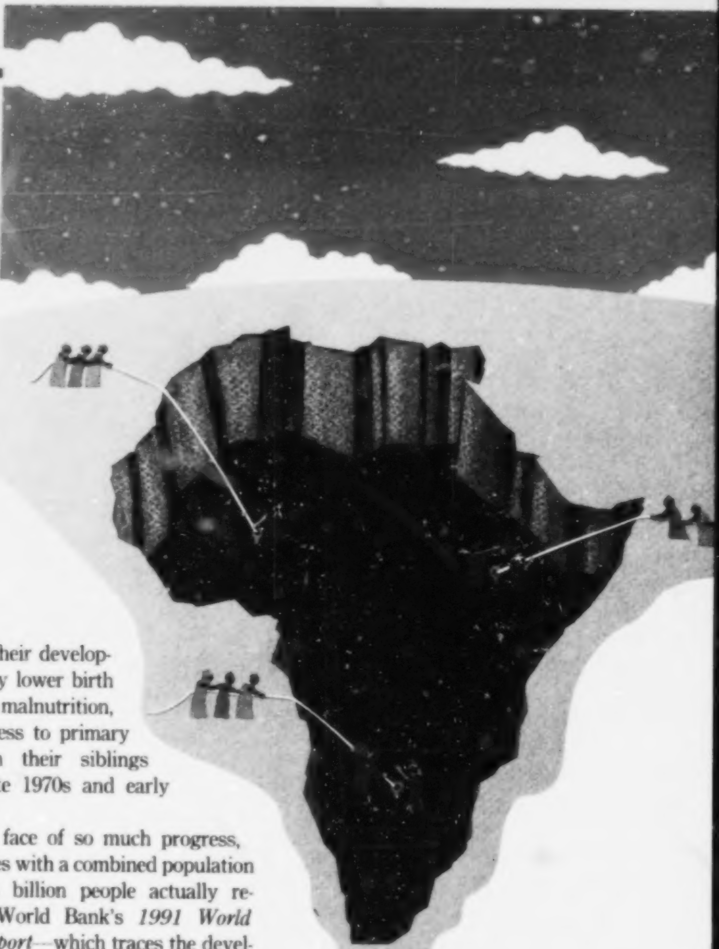
International civil servants are frequently criticized. How do you react to criticism of the IMF staff?

This criticism, once again, is unfair, if it is not mere misinformation. To these critics I would say: If you can find somewhere an institution with less than 2,500 people that plays such a decisive role for the world economy, then give them the work of the IMF. We will never be able to show adequate recognition for the outstanding contribution of the IMF staff to a better world. I feel privileged to help discharge the responsibilities of the IMF. It is an immense personal reward to work with such an excellent staff. My only concern is to make sure that we are not putting too much of a burden on our limited human resources. ■

The Challenges of Development

Some lessons of history for Sub-Saharan Africa

Lawrence H. Summers



For the developing world as a whole, the past 25 years have seen unprecedented progress:

- Per-capita income in low-income countries has nearly doubled over the last generation—growing faster than the United Kingdom during the Industrial Revolution, faster than the United States in its period of rapid growth as it came to economic maturity, and faster than Japan during its prewar growth spurt;
- Life expectancy has increased by ten years—twice the gain the United States could achieve by eliminating both cancer and heart disease; and
- Infant mortality rates have been nearly halved, child death rates have plummeted, and immunization rates have skyrocketed.

But this impressive overall performance conceals an extremely uneven pattern of progress. While some countries in East Asia have seen their incomes double and then double again, 36 nations are poorer today than they were a generation ago (see table)—19 of them in Sub-Saharan Africa. One in every two Africans lives in a nation that has lost ground over the last 25 years, compared with only one in 20 Asians or one in four Latin Americans (see chart), meaning social development has stagnated or even suffered reversals. In many African countries today, children are more likely to have their development stunted by lower birth weight, higher malnutrition, and poorer access to primary education than their siblings born in the late 1970s and early 1980s.

Countries whose constant dollar GNP per capita was lower in 1989 than in 1965

AFRICA	LATIN AMERICA	ASIA
Benin	Argentina	Bangladesh
Burundi	Bolivia	Nepal
Chad	Chile	Pakistan
Ethiopia	Dominican Republic	Sri Lanka
Gambia	Guatemala	Syria
Ghana	Guyana	
Madagascar	Honduras	
Malawi	Jamaica	
Mauritania	Panama	
Niger	Peru	
Nigeria	Venezuela	
Senegal	Uruguay	
Somalia		
Tanzania		
Togo		
Uganda		
Zaire		
Zambia		
Zimbabwe		

Source: The World Bank.
Note: The constant dollar GNP per capita is based upon *World Bank Atlas* GNP per capita in dollars deflated by a US GDP deflator into 1989 dollars (1965=26.7). Growth rates of constant price, local currency, GNP per capita may differ substantially due to exchange rate changes.

Why, in the face of so much progress, have 36 countries with a combined population of over half a billion people actually regressed? The World Bank's *1991 World Development Report*—which traces the development record of the last 45 years, drawing on a wealth of Bank research and institutional experience, including the *Long-Term Perspective Study of Sub-Saharan Africa*—provides two explanations:

- First, national development failures are the fault of national policies—they cannot be blamed on a hostile international environment, or physical limits to growth; and
- Second, national policies have failed when governments thwarted progress, supplanting markets rather than supporting them.

Why has development failed?

In searching for an answer to this difficult question, several reasons are often cited that seem to absolve national governments of responsibility. Perhaps the least plausible is a lack of foreign aid. Just look across continents—Africa received 8 percent of its income in foreign aid in 1989, much higher than the 1.7 percent for South Asia, 0.7 percent for East Asia, and 0.4 percent for Latin America. Eastern Europe dreams of, but does not expect to receive, 2 percent of its income in foreign assistance. True, Africa is poor so its aid share in income looks big. But Africa received four times as much assistance per person as Asia in 1989, and Africa's share of world aid has risen even as it has fallen further behind.

What about terms of trade? Terms of trade have turned against some commodity exporters in recent years, and many are on the list of countries that have regressed. But this can hardly explain why some countries succeeded while others failed. A comparison is telling. In 1965, Thailand was poorer than Ghana, Uganda, and Niger, and even as late as 1970, was more dependent on commodity exports than Kenya or Côte d'Ivoire. Yet today, Thailand is emerging as a newly industrialized economy, with manufactures accounting for more than half of exports.

Despite all the complaints about declining terms of trade, African countries have not fared well in maintaining their share of the market. From 1970 to 1986, Ghana's share of cocoa exports slipped from 29 percent to 8 percent, Uganda's share of coffee exports fell by almost 50 percent, and Sudan's share of cotton exports dropped by more than half. If Africa had simply managed to maintain its share, it would have enjoyed an additional $10 billion in export revenues—a figure approaching its total foreign aid receipts.

What about debt? Africa's debt burden is crushing, and there is no realistic prospect of the debts being repaid. But those burdens are a consequence, not a cause, of the miserable return that has been earned on the investments that debt financed. In 1980, the ratio of debt to GNP was 49 percent in South Korea and 28 percent in Indonesia, compared to 9 percent in Nigeria, 29 percent in Ghana, 33 percent in Zaire and 50 percent in Tanzania and Kenya. Debt did not stop these two Asian countries from prospering, and it need not have stopped any African nation. Of course, what is past is past, and as shall be indicated later on, there is a compelling case for debt reduction when and if countries undertake serious reforms in their policy environment.

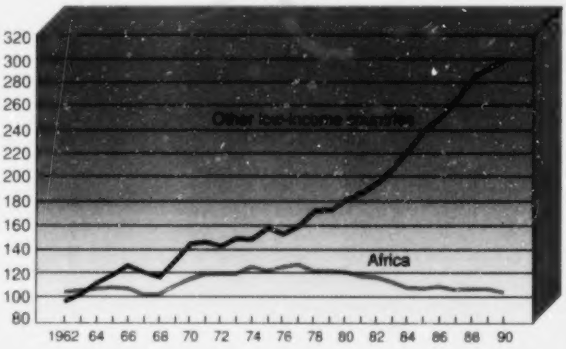
Finally, what about inherent absolute physical limitations on nations' ability to provide for growth? In some cases of regress, Argentina for example, this clearly does not apply. Nor is it very persuasive in Africa. Agricultural yields per hectare have more than doubled over the last 30 years in the developing world, but they have risen by less than 30 percent in Africa. There is no question that with proper incentives for farmers and adequate infrastructures, Africa could greatly expand its food output.

Policies that work

Where then can we turn for guidance? Certainly, there is one simple but often neglected lesson: War stops development. Almost all of the 36 countries that have lost ground over the last 25 years have been involved in a substantial military conflict. The Middle East is often thought of as the world's tinderbox; yet relative to population, Africans have three times as high a war fatality rate. In the last 30 years, wars have claimed nearly seven million victims, either directly or indirectly, by making the provision of food and basic social services difficult or impossible. Today, post-Cold War, the threat of "hot" war in Africa persists. Sub-Saharan African governments spend four times as much on the military as on health, and equal amounts on the military and education. By contrast, in East Asia, spending on both health and education far exceeds military outlays.

But what else does the development record have to offer? A review of the successes and failures suggests four key lessons about government policies. In essence: governments that fail do too much and do it badly; successful governments do less and do it better.

Africa left behind
GNP per capita
(1960=100)



Source: The World Bank.

Sound macroeconomic policies with sustainable fiscal deficits and realistic exchange rates are a prerequisite to progress. Large government budget deficits absorb domestic saving and foreign funds that could otherwise be channeled to the private sector. They crowd out more productive investments, frequently placing the financial system under great strain. Often they induce rapid inflation, which exacerbates the deficit, creating a vicious cycle. Deficits also lead to overvalued exchange rates, thereby stifling exports, damaging domestic producers, and creating pressures for protectionism. Look at Zaire and Thailand in the late 1980s. Thailand enjoyed stable rapid growth with low deficits, while Zaire suffered large deficits and bore the consequences in terms of lost export competitiveness, reduced private investment, and slow growth.

If persistent government budget deficits are the surest route to economic failure, an artificially overvalued exchange rate must be the runner up. Overvaluation leads to the rationing of foreign exchange, which historically means that those in government and their friends skim off large rents. It creates pressure for layer after layer of controls on imports, capital flows, and even travel. It also destroys emerging export industries, perhaps the most important foundation for growth.

There is an easy and reliable way to identify unrealistic exchange rate policies: compare the official rate with the parallel market rate. Studies demonstrate that when the spread is wide, growth slows, returns on investment decline, and the prospect of financial crisis and capital flight increases. That a strong currency makes for a strong economy is a particularly damaging myth. The Asian success stories were all built around the export growth created by low, realistic, real exchange rates. In 1970, Indonesia's manufactured exports in 1970 were less than Nigeria's and are now 36 times as large, and Malaysia's were three and a half times Kenya's and are now 52 times bigger.

A permissive rather than a prohibitive policy environment is essential for the private sector. The great debate over economic systems is now over. Almost no one disagrees that communism is the longest way from capitalism to capitalism. For all their faults, competitive markets are the best way man has yet found to get goods and services produced efficiently.

What does creating a permissive environment for the private sector entail? One thing it means is avoiding government monopolies or punitive regulations. The tremendous success of the Nigerians in abolishing agricultural marketing boards and moving toward a realistic exchange rate is clear. Output of a number of key export crops, including cocoa, has increased by more than 50 percent since low points reached in the mid-1980s. Indeed, the production of both rubber and cotton has quadrupled since 1986; soybean production and processing has risen even more.

A permissive environment also means allowing market forces to determine prices without price controls or large subsidies. Fertilizer policies in many African countries exemplify what is wrong with price controls—the resulting rationing implies that some well-connected farmers secure large amounts of fertilizer at low cost, while those less well-connected find fertilizer less available and more expensive.

Finally, a permissive environment is one where government seeks to reduce rather than increase the cost of doing business. That means lowering tariffs and quotas on crucial intermediate and capital goods. According to a recent study, investment costs are 50 percent higher in Africa than in South Asia, and this is just the cost of capital goods, with no account taken of the additional costs caused by the inefficient provision of infrastructure. The need for business to maintain their own capacity for generating electricity is an example.

Government has no business attempting to directly manage the production of private goods and services. Around the world, the record of public enterprise management is one of disaster. While it may be true in theory that a properly managed public enterprise can be as productive and efficient as a private one, the reality is that politics, usually of a virulent nature, intrudes, and efficiency is sacrificed. Public enterprise managers are rarely permitted to shed labor to produce at minimum cost. Moreover, procurement is often treated as a way of enriching contractors and procurement officers.

Nigeria appears to provide almost a textbook example of what can go wrong when the government gets directly into the business of producing goods and services. Between 1973 and 1990, the Nigerian public sector invested $115 billion, just about $1,000 for every citizen. Yet there is no growth to show for this investment. Why? Most of the investment was greatly overpriced for "non-commercial" reasons. In addition, most public sector assets are operating at capacity utilization of less than 40 percent. This is not to mention the $3 billion Ajaokuta Steel complex, which, after another $1 billion to complete, will then lose money even on a sunk cost basis.

It does not have to be this way. Look at the difference between oil refineries run by private firms and those that are public. Look at the difference between hotels maintained privately and publicly. Relying on the private sector to undertake major investments, Nigeria could have achieved the same output with up to $80 billion less investment over the last 18 years since the oil boom.

No country has ever developed without adequate provision of basic investment in infrastructure and in people. Governments that spread themselves too thin inevitably find themselves neglecting the tasks that only they can perform. Experience suggests that governments that stay out of the production business, as did many in East Asia, provide more effectively for schooling and health care and create better infrastructure foundations for private business.

Small amounts of public investment in key sectors, such as agriculture, can make a huge difference. For example, small-scale, relatively cheap irrigation schemes and the basic tasks of agricultural research and extension are neglected, while large outlays are allocated for fertilizer subsidies in many countries. Similarly, a classic pattern is overinvestment in new physical facilities and underinvestment in repair and maintenance.

Human investments are especially important. The two greatest threats to Africa's future are the investments that are being neglected in primary education and in food security. A child born in Mali, Niger, or Burkina Faso today is more likely to be malnourished while under five than to go to primary school on reaching six, and in at least 16 African countries, a child is more likely to die before the age of five than to attend secondary school. Ironically, the public sector workforce is often neglected even as employment expands. Teachers' real wages fell by two thirds over the last 15 years in Nigeria and by 13 percent in eastern and southern Africa from 1980 to 1985. It is hardly surprising that education deteriorates. In nations where the quality of education and health care are rising, the salaries of teachers and nurses are increasing as well.

The two greatest threats to Africa's future are the investments that are being neglected in primary education and in food security.

The case for adjustment

These four principles underlie the adjustment programs that the Bank now supports—and has supported—in many African countries. They reject the heavy-handed government policies of the past, instead looking to governments to provide necessary basic services and positive support to the market. Tanzania's plight in the 1980s had as much to do with a decline in the provision of public services as with the mess policies had made of resource allocation in the production of private goods. Reform of public sector management and expansion of physical and social infrastructure will be essential to success. This can only occur, however, if growth takes off in goods production, which depends in turn upon an enabling environment for the private sector—a tough recipe to fill.

As a Ghanaian official recently put it: "We need two legs to walk on—a strong and effective state and a strong private sector; we have neither and are not likely to have either any time soon. We are like a cripple I saw recently with no legs, pushing himself around on a crude board with wheels, surviving only by begging and trying to look sympathetic to the potential alms giver."

Some critics allege, however, that the adjustment programs lack a human face. There is no question that Africa's crisis has produced welfare declines—incomes have fallen, and amongst African countries forced to cut overall spending, real social spending per head decreased 26 percent between 1980 and 1985. But this reduction was largely forced by the overall drop in national income and the necessity to deal with unsustainable budget deficits. Governments actually went some way to protect social spending, which rose from 23 to 26 percent of total non-interest spending for this group. Yet undoubtedly, more needs to be done.

In the course of the 1980s, the Bank has paid increasing attention to this issue, emphasizing improved social service delivery and the protection of education and health spending, especially at the primary levels. A third of adjustment loans involved conditional social sector spending in 1989–90, up sharply from only 7 percent in the first half of the decade. Yet social sector improvement is only possible if governments have the political courage to come down on weak programs rather than weak claimants.

Some critics also assert that devaluation or the elimination of subsidies further impoverishes the poor. This is a misconception. Subsidies and exchange controls redistribute purchasing power—they do not create it. Prior to reform, the poor in countries like Mozambique or Tanzania often received the worst of both worlds, purchasing goods at high parallel market prices, while selling their own produce at depressed official prices. When markets were (partially) liberalized in Tanzania, rural welfare improved immensely, simply because goods became available again. While it is true that urban wages have declined drastically in many countries, the primary reason was the collapse of urban labor demand as attempts to pursue inefficiently capital-intensive and public sector-led growth fell apart. Where adjustment has been consistently pursued and growth is coming back, as in Ghana, urban wages have begun to recover as well.

Finally, some critics assert that trade liberalization does not work, because either local producers will not respond or foreign markets will be closed. At least in the case of Africa, the idea that closed foreign markets inhibit exports is not tenable. Africa's share in worldwide exports has plummeted over the last two decades, while East Asian countries have increased their share in commodity and non-commodity markets. In the 1980s, even large developing countries such as China and Mexico sharply boosted their shares of world markets. Because of poor infrastructure and weaker market institutions, supply responses will sometimes be slower in Africa, but evidence demonstrates that producers do respond when given the proper incentives and the tools to work with. Indeed, Tanzania's urban informal sector is estimated to have tripled in size since the mid-1980s.

Some final thoughts . . .

Nations control their own economic destiny. But this is not to deny that the developed world has a continuing obligation to Africa. At a minimum, it is high time that as African governments act to provide a sensible framework for private production and cut wasteful spending, major creditors respond by negotiating substantial reductions in debt service.

For most of the 1980s, both private and official creditors pretended that African countries could service their debt and rescheduling was the order of the day. With low-income African nations only making 42 percent of their scheduled payments this year and Côte d'Ivoire's private debt trading at 5 percent of its face value, this is clearly untenable. Even with export-promoting policies, the only good chance most African countries have of achieving a sustainable balance of payments position in the 1990s is through a large reduction in private and official debt (the latter, on Trinidad terms, for example) and higher aid flows. This only makes sense, however, if the resources are likely to be used wisely, not squandered on inappropriate industries, unnecessary public spending, or in support of overvalued exchange rates.

Lawrence H. Summers *a US citizen, is Vice President, Development Economics, and Chief Economist of the Bank. He is on leave from his position as Professor of Economics at Harvard University.*

There are widespread fears that with the focus of foreign aid donors' attention turning to the former Soviet bloc, Africa will be marginalized. But these fears are overdone. For instance, the Bank is lending less as an institution than it could be. Much greater is the risk that an impatient world will stop aid to help those who are not seen to help themselves. Foreign private capital is unlikely to flow to countries that cannot even succeed in attracting their own citizen's capital. Moreover, government aid to Africa is threatened by the perception that too many African governments are "kleptocracies."

Can the next two decades be better than the last two? If African nations learn from worldwide experience and put into action the above-mentioned principles, there is no reason why living standards in Africa cannot double over the next generation. But there is one lesson to keep in mind: Takeoff takes longer than one expects but then happens faster than one expects. Who could have expected even five years ago that Mexico would today be wrestling with the problem of how to manage capital inflows from the United States? ■

Do you want to receive your copy of FINANCE & DEVELOPMENT by air?

Finance & Development is normally sent without charge by surface mail, but for faster service, air delivery is now available for US$20 (advance payment required).

Please write or call:

Publications Services
Finance & Development
International Monetary Fund
Washington, DC 20431 USA

Telephone : (202) 623-7430
Telefax: (202) 623-7201

Air Delivery Payment Options
All orders must be paid in advance.

☐ Cheque or bank draft in US$ enclosed (no cash)
☐ Please charge US$ __________ to my
  ☐ American Express
  ☐ MasterCard
  ☐ Visa
Expiration Date ______/______ (mo. yr.)

Account# ______-______-______-______

Signature ______________________ (required on all orders)

AIR

Central Banking Reforms in Formerly Planned Economies

What are the key areas of reform necessary for effective monetary management in centrally planned economies in transition?

V. Sundararajan

As the new governments of Eastern Europe increasingly move from centrally planned to market-based systems, a wide range of reforms in central banking and monetary management, as well as in the broader financial sector, take on considerable importance for attaining macroeconomic stability. Indeed, the development of an efficient framework for monetary management—without which stabilization would be difficult to achieve—is an interactive and evolutionary process, whereby certain financial sector reforms facilitate the transformation of monetary management, and vice versa. This process involves providing greater autonomy to central banks, strengthening competition in the banking system, promoting the development of money and securities markets, streamlining the payments system, restructuring of the financial system to deal with problem loans and enterprises, and developing an effective banking supervision system.

While these goals are common in varying degrees to all countries seeking to reform their financial sectors, the structural features of centrally planned economies (CPEs) have posed special challenges for the design of reform measures and the sequencing of these measures in coordination with other structural and stabilization policies. This article outlines these challenges in the CPEs—based mainly on the experiences of Hungary, Poland, Czechoslovakia, and China—by presenting a conceptual framework of reforms in monetary policy framework and financial markets, within which country experiences could be interpreted and assessed.

Pre-reform environment

A typical CPE has a state bank, which usually has a significant monopoly over banking and credit. Under this "monobank system," there can exist an almost unlimited capacity to create bank deposits. In addition, specialized financial institutions often provide banking services to particular sectors, essentially channeling credit to enterprises in line with the rules specified by the central authorities.

There are two distinct and separate financial circuits. One serves the household sector,

---

For a detailed discussion, see "Financial Sector Reform and Central Banking in Centrally Planned Economies," by V. Sundararajan, IMF Working Paper WP/90/120, available from the author.

which receives personal incomes in cash, pays for consumption in cash, and deposits funds (mainly in savings accounts) with, or receives credit from, a specialized bank dealing with households. The other circuit serves enterprises, which receive credit from the monobank or other specialized banks and make payments to other enterprises and government entities via current bank accounts, while paying wages and salaries in cash. Associated with these two circuits are a "cash plan" to program currency issue and a "credit plan" that provides rules on credit allocation to meet planned output targets.

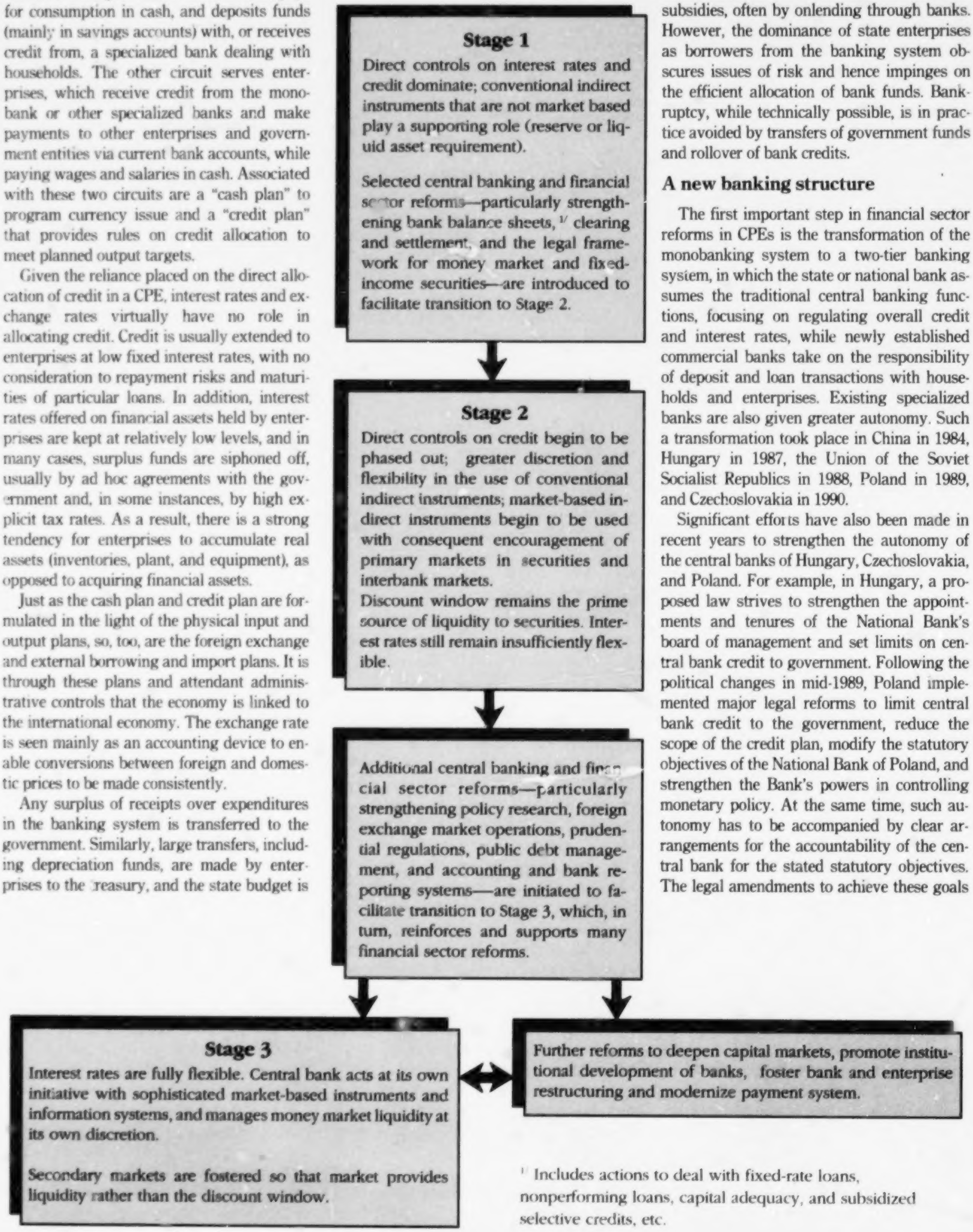
Given the reliance placed on the direct allocation of credit in a CPE, interest rates and exchange rates virtually have no role in allocating credit. Credit is usually extended to enterprises at low fixed interest rates, with no consideration to repayment risks and maturities of particular loans. In addition, interest rates offered on financial assets held by enterprises are kept at relatively low levels, and in many cases, surplus funds are siphoned off, usually by ad hoc agreements with the government and, in some instances, by high explicit tax rates. As a result, there is a strong tendency for enterprises to accumulate real assets (inventories, plant, and equipment), as opposed to acquiring financial assets.

Just as the cash plan and credit plan are formulated in the light of the physical input and output plans, so, too, are the foreign exchange and external borrowing and import plans. It is through these plans and attendant administrative controls that the economy is linked to the international economy. The exchange rate is seen mainly as an accounting device to enable conversions between foreign and domestic prices to be made consistently.

Any surplus of receipts over expenditures in the banking system is transferred to the government. Similarly, large transfers, including depreciation funds, are made by enterprises to the treasury, and the state budget is thus a major source of investment funds and subsidies, often by onlending through banks. However, the dominance of state enterprises as borrowers from the banking system obscures issues of risk and hence impinges on the efficient allocation of bank funds. Bankruptcy, while technically possible, is in practice avoided by transfers of government funds and rollover of bank credits.

Stages in the reform of monetary management and financial markets

(Arrows indicate the direction of influence)



Stage 1

Direct controls on interest rates and credit dominate; conventional indirect instruments that are not market based play a supporting role (reserve or liquid asset requirement).

Selected central banking and financial sector reforms—particularly strengthening bank balance sheets,[1] clearing and settlement, and the legal framework for money market and fixed-income securities—are introduced to facilitate transition to Stage 2.

Stage 2

Direct controls on credit begin to be phased out; greater discretion and flexibility in the use of conventional indirect instruments; market-based indirect instruments begin to be used with consequent encouragement of primary markets in securities and interbank markets.

Discount window remains the prime source of liquidity to securities. Interest rates still remain insufficiently flexible.

Additional central banking and financial sector reforms—particularly strengthening policy research, foreign exchange market operations, prudential regulations, public debt management, and accounting and bank reporting systems—are initiated to facilitate transition to Stage 3, which, in turn, reinforces and supports many financial sector reforms.

Stage 3

Interest rates are fully flexible. Central bank acts at its own initiative with sophisticated market-based instruments and information systems, and manages money market liquidity at its own discretion.

Secondary markets are fostered so that market provides liquidity rather than the discount window.

Further reforms to deepen capital markets, promote institutional development of banks, foster bank and enterprise restructuring and modernize payment system.

[1] Includes actions to deal with fixed-rate loans, nonperforming loans, capital adequacy, and subsidized selective credits, etc.

A new banking structure

The first important step in financial sector reforms in CPEs is the transformation of the monobanking system to a two-tier banking system, in which the state or national bank assumes the traditional central banking functions, focusing on regulating overall credit and interest rates, while newly established commercial banks take on the responsibility of deposit and loan transactions with households and enterprises. Existing specialized banks are also given greater autonomy. Such a transformation took place in China in 1984, Hungary in 1987, the Union of the Soviet Socialist Republics in 1988, Poland in 1989, and Czechoslovakia in 1990.

Significant efforts have also been made in recent years to strengthen the autonomy of the central banks of Hungary, Czechoslovakia, and Poland. For example, in Hungary, a proposed law strives to strengthen the appointments and tenures of the National Bank's board of management and set limits on central bank credit to government. Following the political changes in mid-1989, Poland implemented major legal reforms to limit central bank credit to the government, reduce the scope of the credit plan, modify the statutory objectives of the National Bank of Poland, and strengthen the Bank's powers in controlling monetary policy. At the same time, such autonomy has to be accompanied by clear arrangements for the accountability of the central bank for the stated statutory objectives. The legal amendments to achieve these goals are still being pursued in these countries; Poland, however, has already adopted some of the needed amendments.

As regards the activities of the recently established commercial banks, their ability to compete for deposits and loans of nonbank entities are somewhat limited, owing to the dominance of specialized banks that existed prior to the reform. Although the system is still dominated by specialized banks, the regulatory environment has been liberalized to permit freedom in lending, undertake a wide range of investments and services, and create a new range of financial institutions.

The new commercial banks are technically autonomous in their loan and management decisions. But their autonomy and competitiveness is often hampered because of heavy dependence on central bank funds; extensive reliance on interest subsidies from the budget; the large share of state-directed low interest loans, particularly for housing; the dominance of large state enterprises in the loan and deposit portfolio; and finally, the state ownership of most banks. Of course, the relative importance of the above factors differs from country to country.

Reforms of monetary management

Closely associated with the banking reforms have been major changes in the mix of instruments of monetary control and in the foreign exchange system. Indeed, the reform of monetary instruments can be seen as an evolutionary process divided into several stages, and the transition from one stage to the next typically requires reforms in the other central banking functions and in the broader financial sector. Most countries are at the beginning of stage two (see box). Much progress has been made to adapt monetary control instruments to the structure of the banking industry. The detailed credit allocation process has been replaced by various direct and indirect controls, such as central bank refinancing quotas and bank-specific credit ceilings, supplemented, as needed, by reserve requirements and special deposits with the central bank. Recently, some market-based indirect instruments (e.g., treasury or central bank bill auctions) have also been introduced in Czechoslovakia, Poland, and Hungary. In addition, liberalization of current account restrictions and the unification of the exchange rate system, with some progress toward domestic markets in foreign exchange, have been prominent features of reform in Czechoslovakia and Poland.

The authorities have sought to carry out monetary policy in ways that are conducive to money market development. This has been done by gradually emphasizing operations in money market securities and by encouraging banks themselves to operate in this market. The success of such policy objectives rests on flexibility in interest rates and the implementation of various supporting reforms, such as strengthening prudential regulations, public debt management, and accounting and bank reporting systems.

The design of monetary policy instruments and the evolving structure and scope of interest rate policy have been strongly influenced by the uneven distribution of deposits and credits following banking reforms, the weaknesses in the clearing and settlement system and in money markets, as well as other structural and policy factors.

Uneven distribution of deposits and credits among banks. This resulted, in part, from the way banks were split up from the monobank and contributed to the large dependence on central bank or interbank deposits for many banks, particularly the newly formed banks. As a consequence, central bank refinance policies—the interest rates on refinance and the methods of allocating refinancing facilities among the banks—have had a far-reaching impact both on the effectiveness of monetary control and on the evolution of money and interbank markets. In most countries, the facilities for allocating financing from the central bank among individual banks, based on uniform criteria, have posed difficult technical problems. The use of uniform criteria put pressure on the nascent interbank market to redistribute a large volume of bank reserves. In order to avoid the resulting hardship to banks and enterprises, a part of central bank assistance was given out as medium-term loans and the rest of the assistance was restructured into various short-term facilities—bill discount, credit against collateral of bills and securities (Lombard credit), and current account (overdraft) credit. In Czechoslovakia, however, the dependence of deficit banks on the interbank deposits of surplus banks turned out to be so massive as to raise doubts about the degree of competition and flexibility in the money and deposit markets.

V. Sundararajan
Indian, is Deputy Director of the IMF's Central Banking Department. He holds degrees from the Indian Statistical Institute and Harvard, and has published in the areas of exchange rate and interest policies.

Payments systems. The clearing and settlement systems for payments are typically on a gross (item-by-item) basis, instead of a net basis (that is, net of payments to other banks). The lack of net clearing arrangements, the delays in transmitting information, inadequate rules for interbank settlements, and the preoccupation of the system with the legality of payments—more than the speed and certainty of delivery of funds—have together created large uncertainties in the amount of banks' clearing account balances, weakened monetary control, and distorted monetary statistics and prudential returns. These inadequacies have become a significant factor in many countries, impeding the growth of money and interbank markets and the effective pursuit of indirect monetary control based on active liquidity management by the central bank and commercial banks.

Other structural and policy factors. While interest rates have been largely liberalized in Poland, different degrees of control remain in China, Czechoslovakia, and Hungary. As is to be expected, the refinance rate—the rate at which resources can be obtained from central banks—became the key interest rate influencing or guiding the deposit and lending rates in Hungary, Poland, and Czechoslovakia. As part of stabilization measures, real interest rates were increased substantially—in some countries to positive real levels. However, the effectiveness of such interest rate management has been constrained by the structure of the banking system. First, the level and structure of interest rates has been influenced by the high degree of concentration in the banking system, by the large share of loans at low and fixed interest rates in most countries, and by the massive volume of nonperforming loans in others. Second, the response of nonbanks to interest rate policy has been weak, owing to lack of financial discipline and slow progress in restructuring enterprises and establishing accountability for profits. Finally, flexible management of interest rates has proved difficult largely because of the difficulties in introducing market-based instruments of monetary control, which require adequate flows of information supported by speedy and reliable accounting procedures, settlement arrangements, and policy research.

Many of these constraints to effective monetary policy are being addressed as part of the current program of banking and monetary reforms. In particular, the authorities are either implementing or considering various methods to deal with the large volume of loans at low and fixed interest rates in major financial institutions. Similar, but more complex problems, arise with regard to the large volume of nonperforming loans in all countries, particularly Czechoslovakia. In all countries, reforms of various central banking functions—notably research, accounting, and information technology—are underway in support of active monetary policy.

The sharp growth in foreign currency deposits of households (and also enterprises in some countries) in the domestic banking system has posed special challenges to the implementation of monetary policy in Poland and to some extent, in Czechoslovakia. A major problem has been the significant short-run shifts in the demand for domestic currency assets and in the national currency money multiplier, owing to changes in exchange rate expectations and the consequent substitution between domestic and foreign currency deposits. In addition, the sizable foreign currency exposure of the banking system has led to large losses or reduced profits, particularly following currency depreciation. Various approaches to dealing with these problems have figured prominently in the debate on financial sector reforms.

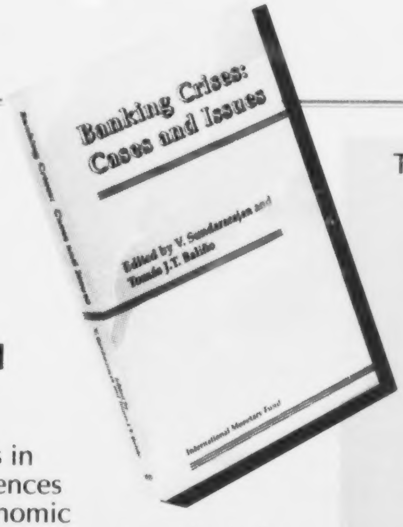
Banking supervision

The introduction of banking supervision has not kept pace with the rapid developments in the banking system and the rapid growth in the number of banks in some countries. The slow progress in banking supervision reflected weaknesses in the legislation, as seen in China, protracted debates on the appropriate role and structure of banking supervision, as in Poland until mid-1989 and Czechoslovakia more recently, and limited resources devoted to supervision. The need to adapt the traditional accounting concepts to the needs of a market-oriented economy and the difficulties in building up staff with the requisite training also slowed progress in developing supervisory systems.

The application of prudential supervision has also been complicated by many macroeconomic and technical factors. These include political difficulties in restructuring banks and enterprises in order to absorb the losses due to bad loans and foreign exchange exposure, the inadequacies of loan recovery and bankruptcy laws, the dominance of large loan or deposit customers in many countries, and the limited scope for raising capital in most CPEs. The absence of adequate credit analysis and loan monitoring and internal audit systems in commercial banks also impedes the supervision process. Moreover, the lack of progress in dealing with losses due to bad loans and foreign exchange exposure has constrained the decisions on interest rate policy.

Conclusion

Financial sector reforms in many CPEs are being implemented in a period of significant instability in the macroeconomic environment, weakness in balance of payments, and major distortions in relative prices and investment allocation. The need to implement stabilization policies supported by financial sector reforms and other structural reforms raises complex questions regarding the appropriate sequencing of central banking and financial sector reforms and their integration with macroeconomic adjustment measures. In particular, the significance of monetary policy reforms for effective stabilization, as well as the close links between reforms of monetary policy, money markets, and the clearing and settlement system, point to the importance of parallel reforms in these areas early in the reform sequence. ■


Banking Crises: Cases and Issues
Edited by V. Sundararajan and Tomás J.T. Baliño
International Monetary Fund

NEW FROM THE INTERNATIONAL MONETARY FUND

Banking Crises: Cases and Issues

edited by V. Sundararajan and Tomás J.T. Baliño

The condition of banking systems in developing countries strongly influences the design and effectiveness of economic adjustment policies. Bank portfolio weakness can limit the flexibility of interest rate policy, the scope of financial reforms, and the conduct of monetary and fiscal policy. This volume examines the link between financial problems and macroeconomic policy and highlights the need for prudential regulations and the appropriate institutional framework to deal with problem banks and borrowers.

To order, please write or call:

International Monetary Fund

Publication Services
Box FD-201
700 19th Street, N.W.
Washington, D.C. 20431
U.S.A.

Telephone (202) 623-7430
Telefax: (202) 623-7201
Cable Address: INTERFUND

American Express, MasterCard and VISA credit cards accepted.

Available in English. ix + 375 pp. ISBN 1-55775-187-0. (paper) 1991. US$22.50.

The Reform of Senegal's Banking System

Formerly on the brink of a crisis, Senegal's banking environment has changed impressively

Mario de Zamaróczy

The economic and financial difficulties of many Sub-Saharan African countries have been compounded by a banking crisis, which has been adversely affecting most sectors of their economy, including their external trade. The lack of adequate financial intermediation disrupts economic activity as frozen deposits and nonperforming loans prevent the banking system from carrying out its vital role of collecting and redistributing domestic savings, attracting foreign capital, and facilitating commercial transactions. The solution to these problems usually requires an in-depth reorganization of the existing financial system. One country that attempted to do this was Senegal.

By the middle of the 1980s, Senegal's banking problems seriously hampered financial intermediation and the conduct of monetary and fiscal policies. The problems arose from inadequate lending risk assessment, financing of loss-making public enterprises, and poor management, all of which contributed to sizable and growing nonperforming loans. Hence, the Government of Senegal had to move decisively to redress the rapidly deteriorating situation of a number of ailing banks. In cooperation with the Central Bank of West African States (BCEAO), the authorities embarked on an ambitious multiyear reform program in 1988. They were helped by sizable technical and financial assistance from the BCEAO (through refinancing), the World Bank (in the form of an adjustment loan), the IMF (in the context of a three-year arrangement under the enhanced structural adjustment facility), and bilateral creditors and donors, including France and the United States. The program's structural component is now nearing completion, while the recovery of nonperforming loans is scheduled to continue for another four years. Today, some three years later, the reform of Senegal's banking system is one of the most advanced in West Africa. An indicator of the banking system's transformation is the fact that Senegal, which was a net borrower from the West African Monetary Union's money market until end-1988, has become a net creditor in that market.

The objective of the reform program was to provide the Senegalese economy with an independent, efficient, and well-managed banking system capable of fostering a sound business environment, while supporting the monetary authorities' policies. At the same time, the program aimed at disengaging the Government from the management of the banks and reducing its share in their equity to a maximum of 25 percent. The program encompassed a wide range of measures to rehabilitate, recapitalize, restructure, privatize, or close various troubled banks, as well as to consolidate and/or refinance their nonperforming or illiquid portfolios. As a result, the banking environment in Senegal has improved markedly, with the disappearance of a number of insolvent banks, the strengthening of others, the significant reinforcement of foreign banking partner participation in management, and the substantial withdrawal of the Government from the financial sector, coupled with the creation of a new bank and a loan recovery institution. Alltogether, the number of operating financial institutions declined from 16 at end-1988 to nine at end-1991. In addition, the monetary authorities have been introducing a number of credit and banking regulations aimed at consolidating the results of the reform and reinforcing banking supervision, while promoting indirect credit controls.

In retrospect, the reform of the banking system turned out to be more complex than initially envisaged. The authorities, however, have adopted a pragmatic approach, continuously adapting the reform in light of the difficulties encountered and the experience gained. Thus, the banking system is now more streamlined and government equity participation in the banks is smaller than expected. The reform process can be examined in the two stages described below.

First stage, July 1989-June 1990

The authorities had initially divided the banking system into three groups: (a) banks that were to undergo structural and/or financial rehabilitation but were to continue to operate; (b) banks that were to be shut down; and (c) new financial institutions that were to be created.

The authorities' initial priority was to complete the required financial audits and feasibility studies, with a view to quickly halting the degradation of the banking system. In this respect, the Banque Internationale de l'Afrique de l'Ouest-Sénégal (BIAOS) was the most important commercial bank to be rehabilitated. In the context of its restructuring plan, the BIAOS received an infusion of liquidity and implemented a series of measures aimed at reducing its operating costs. This plan proceeded well during 1989/90 (July-June), with the Government's equity participation being lowered from 35 percent to 18 percent. The rehabilitation of the Banque Sénégalo-Kowéitienne (BSK) and the Massraf Fayçal Al-Islami du Sénégal (MFIS), two private banks, was dependent on the provision of the requisite financial resources by their shareholders. As this did not materialize, the BCEAO suspended their operating licenses in November 1989 and put the first one under receivership.

The reform program initially envisaged the liquidation of six banks. The closing of the Union Sénégalaise de Banques was essentially completed by mid-1989, as the Crédit Lyonnais-Sénégal (CLS)—a new, privately owned commercial bank with only 5 percent government participation—took over part of its performing assets and corresponding liabilities. In addition, during 1989/90, three public sector banks were closed, and liquidation procedures were initiated for a development bank and a third private commercial bank. Their performing loans were to be taken over by a second new bank, the Crédit National du Sénégal (CNS), and their nonperforming assets were to be transferred to a loan recovery institution. However, the CNS, which was incorporated formally in January 1990 as a commercial company, pending the receipt of a banking license, did not start its operations as it could not secure a banking license for lack of private capital subscription.

Second stage, July 1990-June 1991

During the second period of the reform, the authorities focused their efforts on reorganizing the banking system. It soon became evident, however, that the initial reform plans had to be amended, as the expected foreign capital inflows destined for the recapitalization of the troubled banks had only partially materialized. Concurrently, progress on the recovery of the closed banks' outstanding loans remained slow. Against this backdrop, the authorities decided to accelerate bank closures and avoid the multiplication of loan recovery institutions. In the group of the banks to be rehabilitated, the restructuring of the BIAOS was completed in 1990/91. The restructuring involved an additional recapitalization, the further reduction of the Government's equity share to only 10 percent, and the securing of a foreign banking partner.

In September 1990, the operating licenses of the BSK, the development bank, and the third private commercial bank were revoked, and liquidators were appointed; the assets of the latter two institutions were combined, pending their transfer to a recovery institution. During 1990/91, no change occurred in the situation of the MFIS, as the envisaged capital subscription did not materialize and the bank's operations remained suspended. Since the recently created CNS could not secure the required capital subscription during 1990/91, the BCEAO eventually resorted to selling most of the liquidated banks' performing assets and rediscounting the remainder.

As the reform program progressed, the Government realized that the setting up of several loan recovery institutions would lead to an unnecessary dispersion of means and reduce the efficiency of the recovery process. Therefore, it was decided to create a single loan recovery body, the Société Nationale de Recouvrement (SNR), which took over the nonperforming assets and corresponding liabilities of all liquidated banks. The SNR was instituted in February 1991 and immediately empowered with exceptional legal rights to facilitate and accelerate its recovery activities. Its supervisory board, including a central bank representative, has since adopted a document defining the general recovery strategy; the criteria to be used to reimburse frozen deposits, with preference given to small depositors; the monitoring of the recovery process; and the limitation of operating costs to 5 percent of the net recovery.

An important step in the rationalization of the Monetary Union's policies was the streamlining of the interest rate structure.

In the context of its divestiture strategy, in March 1991, the Government reduced its equity participation in the capital of a major commercial bank from 42 percent to 25 percent by selling shares to private investors, including employees of the bank. The Government has adopted a similar approach vis-à-vis the agricultural credit bank, with a view to reducing its equity participation from 68 percent to 25 percent in the medium term.

Credit and banking regulations

An important step in the rationalization of the Monetary Union's policies was the streamlining of the interest rate structure, including the elimination in October 1989 of the preferential rediscount rate, which applied primarily to crop credit. In order to strengthen banking supervision, the BCEAO set up a supranational banking supervision commission, which became operational in October 1990. The commission is based in Abidjan, Côte d'Ivoire, and has the mandate to conduct frequent audits of all banks operating in the Union. In late 1990, preparations were undertaken to eliminate the required prior authorization of loans and to replace it with a new creditworthiness rating system for all lending decisions. As a result, starting in January 1992, any loan exceeding CFAF 200 million (about US$700,000) is to be reported *a posteriori* to the BCEAO, which then has 60 days either to approve or disapprove the financial soundness of the loan. After a three-year transitional period, at least 60 percent of any bank's portfolio will have to consist of approved loans. Finally, the monetary authorities decided to introduce prudential reserve requirements at a later stage.

Developments since July 1991

Following the collapse of a multinational commercial bank in a foreign country, the Dakar branch of that bank was shut down, as a provisional measure, and a receiver was appointed in July 1991. Reimbursement of depositors should not pose any difficulties, as the bank was liquid and a net creditor in the Union's money market; other banks have already expressed an interest in taking over its loan portfolio. The monetary authorities are exploring the possibility of transforming all the branches of that bank into a new Union-wide bank rather than liquidating them. In Senegal particularly, this would avoid sending a wrong signal to the financial community at a time when the structural reform of the banking system has been virtually completed.

Conclusion

Senegal has made considerable progress in reforming its banking system, moving from a system facing a major crisis because of sizable nonperforming loans and pervasive government intervention to a lean financial network, supported by streamlined and rationalized monetary and credit policies. The new system is now operating satisfactorily with minimum government involvement and lends a significant amount of capital to the Union's money market. It needs to be noted, however, that because of its complexity, the reform has needed several years, and has absorbed sizable domestic and external financial resources. It is therefore critical to consolidate the progress made and monitor closely future developments. ■

Reform of Monetary Policy Instruments

What are some of the issues in the development of a market-based system of monetary control?

Chorng-Huey Wong

A particularly important function of a financial system in a market economy is to help mobilize a society's savings and to channel them to the most efficient types of investments. As direct controls of credit and interest rates have led to inefficiency and resource misallocation, in recent years many developing countries have begun to reform their systems of monetary control in favor of a more active use of indirect or market-based instruments to achieve macroeconomic objectives. Market-based monetary instruments are employed to influence money, credit, and interest rates indirectly through changes in the liquidity conditions of commercial banks and other financial institutions. Many issues, however, have arisen during various stages of monetary policy reform in these countries. These issues are largely related to two questions: (1) how to make a successful transition toward a market-based system, and (2) how to strengthen the effectiveness of market-based operations.

Making the transition

Monetary policy reform takes time; it is unlikely that all reform measures can be implemented at the same time. Further, the reform of monetary control instruments and procedures both affects, and is affected by, the liberalization of the financial sector. The question arises as to which reform measures should be taken first. The answer depends very much on the circumstances faced by the country authorities, the existing institutional arrangements, and the efficiency with which organizational and legislative changes can be made. Recent experiences in many countries, particularly those in Asia, have shown, however, that the following sequencing of financial reform measures has worked well.

Introduction of market-based monetary instruments. Several key reforms of monetary control procedures should be implemented very early in the reform process to enable the central bank to anticipate reserve developments and to absorb or provide bank liquidity at its own initiative and in a flexible manner. Initial steps may include the introduction of new monetary instruments (e.g., treasury bills), auctioning procedures for such instruments, and changes in the rules of access to central bank refinancing facilities to facilitate the development of the auction system. An early implementation of such monetary policy reforms in Indonesia and the Philippines, for example, facilitated subsequent interest rate liberalization and financial market development.

Prudential reforms. A system of prudential regulation and supervision—including loan classification and provisioning, capital adequacy requirements, and limits on loan concentration—should be established. Weak financial institutions should be recapitalized or restructured. This would avoid bank insolvency and financial crisis that could otherwise occur in the face of rapid credit growth following financial liberalization. Strong and effective bank supervision and prudential regulation in Malaysia, for example, helped in maintaining interest rate stability immediately following the rapid interest rate liberalization in the late 1970s. The soundness of financial institutions is vital to further development of financial markets and to effective monetary control.

Development of financial markets. The extent to which financial markets are developed and well-functioning is an important factor determining the effectiveness of indirect monetary control. As soon as the basic reforms of monetary control procedures and prudential regulation are implemented, efforts should be devoted to the development of financial markets, and to the strengthening of banking competition. At this stage, interest rates should be progressively liberalized, beginning with the interbank lending rate, and reserve requirements lowered to the extent possible. It is also essential to maintain regularity and transparency of treasury bill auctions, while allowing interest rates on treasury bills to reflect market conditions. The restrictions on the scope of bank activities should be eased and entry barriers lowered. At the same time, the central bank could provide regulatory support to market participants, including dealers, and develop a system whereby market information is effectively disseminated. On the part of the government, differential tax treatment regarding financial instruments should be removed and the government's debt instruments should be market oriented.

It should be stressed, however, that persistent macroeconomic imbalances may hamper the success of financial liberalization. In the Philippines, for example, the failure to stabilize its domestic economy or inappropriate macroeconomic management, combined with inadequate prudential regulation and supervision, led to a financial crisis in the early 1980s.

Removal of direct instruments. A necessary step in financial reform is to discontinue the use of direct instruments once the indirect instruments are established. In order to prevent excessive interest rate fluctuations or credit expansion at the beginning of financial liberalization, however, it may be desirable for the central bank to retain some of the relatively less distortive direct instruments in its arsenal to guard against the loss of monetary control. Measures such as limiting the rate of credit expansion to that of deposit growth, or the imposition of a maximum interest rate spread for the financial institu-

---

For a detailed version, see "Market-Based Systems of Monetary Control in Developing Countries: Operating Procedures and Related Issues," by Chorng-Huey Wong, IMF Working Paper (WP/91/40), available from the author.

tions, may be warranted when the indirect instruments are still in their infancy. The approach taken in the Republic of Korea in the 1980s regarding the limit of bank lending rates, serves as an example. This does not mean that credit ceilings and administrative controls on interest rates should be maintained for a prolonged period while developing indirect instruments. Rather, the strategy should be to place primary reliance on indirect instruments and activate direct instruments only when necessary. As soon as the situation permits, direct controls should be eliminated.

Improving operating procedures

Operating procedures under a market-based system of monetary control vary from country to country, reflecting, among other things, different stages of economic and financial development, as well as different exchange arrangements. There are, however, several essential steps in the procedures that are common in most countries (e.g., Indonesia, Nepal, the Philippines, and Sri Lanka) that strive to achieve quantitative targets for money or credit. First, a desired path for the demand for reserve money is established, derived from an intermediate target variable (e.g., broad money) that is consistent with the ultimate policy goals. Second, a desired path for the operating target variable (e.g., net domestic assets of the central bank), based on the desired path for reserve money, is estimated. Third, on the basis of forecasts for the major elements of the central bank's balance sheet, the projected path for the operating target variable is calculated, assuming that there are no net sales of government securities and no change in other policy instruments. Fourth, the policy response to the deviation between the desired and the projected path of the operating target variable is decided. Several issues associated with such operating procedures have arisen that need to be addressed in order to further develop the market-based system and to strengthen the effectiveness of monetary control.

Assessment of the deviations from the operating target. In deriving the projected paths for reserve money and for the operating target variable, the changes in the autonomous factors on the central bank's balance sheet should be estimated as precisely as possible. For this purpose, short-run economic indicators should be made available in a timely fashion. This would facilitate the central bank's assessment regarding the nature of the deviations between the projected and desired paths of the operating target variable. In turn, this assessment would enable the central bank to decide upon the magnitude and pace of monetary corrections, whether instruments other than open market operations would be required, and whether the operating and intermediate targets should be revised. Rigid adherence to the monetary targets without proper assessment of the character of the changes in autonomous factors could result in excessive volatility in interest rates and possibly the exchange rate.

Coordination with fiscal and external sector policies. As the market-based system continues to develop, interest rates and the exchange rate become increasingly important channels through which monetary policy is transmitted to affect the real economy. It is important that monetary policy be coordinated with fiscal and external policies in order to avoid inconsistencies between targeted demand and supply in financial markets, and undesired interest rate and exchange rate fluctuations. To the extent, for example, that large budget deficits are the main cause of macroeconomic instability, a reliance on restrictive monetary policy without substantial fiscal adjustments would lead to excessively high interest rates. In the absence of capital controls, this is likely to result in large capital inflows. Further, the inflow problem would worsen if the expected rate of depreciation of the domestic currency falls short of the difference between expected domestic and foreign interest rates. On the other hand, if domestic interest rates adjusted for the expected rate of domestic currency depreciation are lower than foreign interest rates, capital outflows would be encouraged.

An important aspect of policy coordination in connection with treasury bill auctions is the link between such auctions and government domestic debt management. The preparation of a cash-flow statement for the government for the fiscal year will establish a path for government domestic borrowing. For this purpose, it is important to develop monthly projections of the main components of government expenditure, revenue, foreign grants, net foreign borrowing, and net domestic borrowing. This information will determine the total amount of government securities that should be sold outside the central bank for monetary developments to move along the desired path.

Concern about interest rate movements. Excessive volatility of interest rate movements has deleterious effects on the solvency of domestic producers and financial institutions, on domestic saving-investment decisions, and on balance of payments and exchange rate stability. Policy coordination, appropriate sequencing, and prudential reforms are expected to contribute to interest rate stability, and so is the establishment of a repurchase market, or a window, at the central bank for secondary trading in government securities.

Many developing countries are, however, concerned about upward movements of interest rates because of their implications for the budgetary operations of the government. In some countries—such as Sri Lanka prior to 1989 and Nepal since 1988—the cut-off rate in each treasury bill auction is determined by the ministry of finance, while the central bank stands ready to absorb any residual quantity of treasury bills. Such concern for the interest cost to the government, however, would limit the scope for monetary control through open market operations. Below-market yields also prevent the development of an active secondary market for government securities. Further, financial institutions holding such government securities tend to pass the implicit "tax" on to their customers through higher interest rate spreads, thus distorting the interest rate structure of the financial sector.

Developing secondary market and repurchase market. In some countries (Nepal, for example), trading in the primary market for government securities is hampered by the absence of, or the lack of development in, a secondary and/or repurchase market, which reduces the liquidity of the securities. Impediments to the development of such markets include below-market yields on the securities, statutory requirements for provident funds and financial institutions to hold substantial amounts of such securities, persistent excess liquidity in the banking system, and the lack of trading expertise and ready access to financing for dealers and other market participants.

In order to develop a secondary market in government securities, it is essential to increase the volume of transactions in the primary market, while making efforts to eliminate the above-mentioned impediments. Once a sufficient volume of securities has been built up, dealers with proper training can be authorized. The dealers will be responsible for making markets in government securities, and providing up-to-date information on buying and selling prices and interest rates on government securities with different maturities, as is the case in the Philippines, among other countries. To ensure the viability of the secondary market, the central bank should develop capital adequacy guidelines for dealers and monitor their activity and risk exposure.

The establishment of a repurchase market is important not only because it would increase the liquidity of securities traded in the primary market, but also because it would enable the central bank to correct or smooth out monetary developments between auctions. Such schemes are working well in Indonesia, Malaysia, Sri Lanka, and Thailand. Repurchase and reverse repurchase agreements should, of course, be well coordinated with the rediscount policy in order to convey the correct signal regarding the stance of monetary policy.

Frequency of transactions and adequacy of debt instruments. While at the beginning of monetary policy reform, the central bank may start with treasury bill auctions on a monthly basis, at some stage it may find that monthly auctions are not frequent enough to absorb or inject reserves of the commercial banks, or that the amounts sold at each auction are so large as to create problems for cash reserve management. Therefore, the frequency of auctions may be increased from monthly to weekly, with the monetary programming and forecasting framework modified accordingly. The increase in the frequency of treasury bill auctions would also offer more opportunities for market participants, facilitating the development of a secondary market.

At the same time, in order to satisfy different preferences of individual investors, the authorities may introduce treasury bills or other government securities with different maturities. Countries that rely on treasury bill auctions as the primary instrument of monetary control may find that, at least on occasion, the magnitude of monetary corrections is such that other monetary policy instruments or additional debt instruments, such as longer-term government securities, would also be required. Further, several instruments, such as repurchases and reverse repurchases, and secondary trading in government securities, are often complementary to the primary bill auctions.

Chorng-Huey Wong
a Chinese national, is a Division Chief in the IMF's Central Asian Department. He holds a doctorate from the University of Minnesota.

An issue regarding the adequacy of debt instruments is the desirability of issuing central bank securities. These instruments are considered desirable because they allow greater freedom for the central bank to implement monetary policy without direct interference stemming from government budgetary considerations. This was one of the reasons why open market operations in the Philippines during 1984-86 had been largely conducted through the purchase and sale of central bank bills. However, if the objective of developing a sound treasury bill market and eventually other markets for longer-term government securities is to be achieved, it is important that central bank securities do not compete with government securities and inhibit market development for the latter. Therefore, central bank securities should not be issued and traded regularly in the market, but be employed only when the availability of government securities becomes a constraint for the conduct of market-based operations. Of course, in countries where a fiscal deficit does not exist, such as in Indonesia, this argument is moot.

Need for up-to-date economic and financial indicators. As part of the monetary programming exercise under the market-based system, the demand for money that is consistent with the ultimate policy objectives should be estimated. It is important to note, however, that financial reform may affect the demand for money function in several ways—a one-time demand shift, changes in the income and interest rate elasticities, or changes in the relative explanatory powers of its determinants. The removal of credit ceilings often would result in increased borrowing by producers, as well as consumers, to hold larger money balances at any given level of interest rates and income. Deregulations would also strengthen the role of interest rates in determining the demand for both money and quasi-money. Further, empirical results for a number of countries, including Indonesia, Malaysia, the Philippines, and Sri Lanka, have shown that the long-run income elasticities of both narrow money and broad money in the post-reform period tend to be smaller than those in the pre-reform period. This may reflect the fact that financial market development permits asset holders to economize on their money balances. For these reasons, the short-run demand for money may be unstable during the reform period. In this circumstance, it is important to develop various up-to-date economic and financial indicators and the capacity to interpret and monitor them so that a better judgment can be exercised in implementing monetary policy.

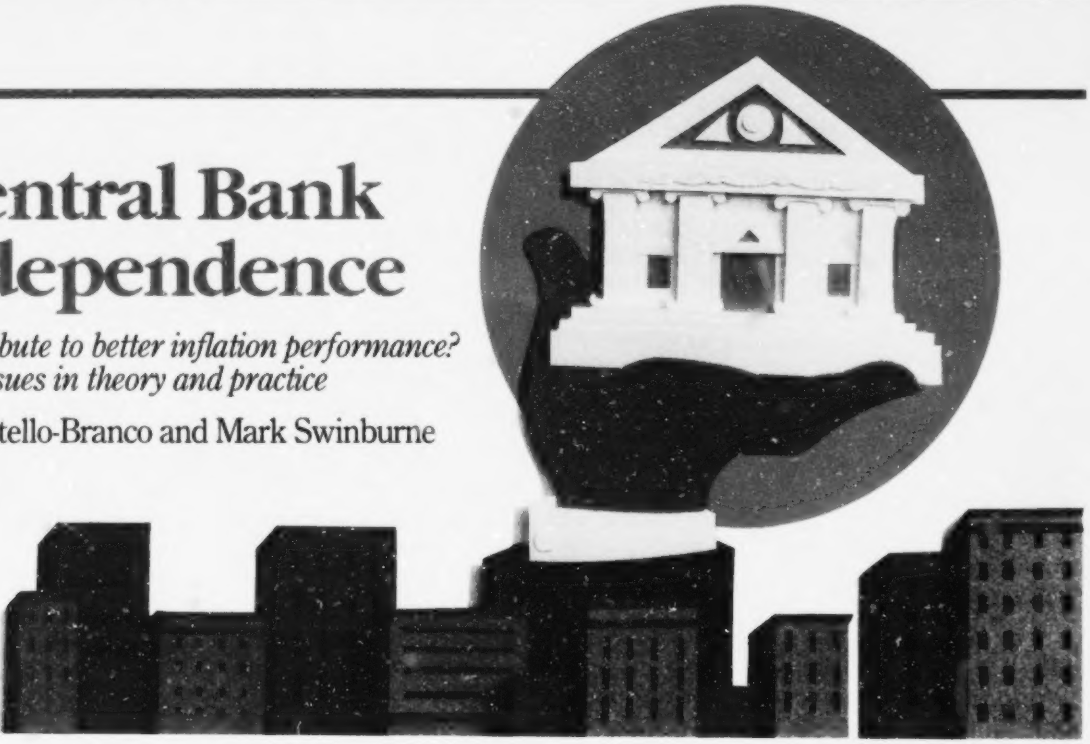
Conclusion

There are no hard and fast rules for the implementation of financial reform due to the vast differences in country characteristics and circumstances. Nevertheless, the issues discussed above reflect some lessons learned from country experiences that may be relevant to the new starters in this area. It should be reiterated that while market mechanisms are emphasized in financial reform, it is crucial to ensure the soundness of the market participants in order to avoid a financial crisis that would undermine the reform process. ■

Central Bank Independence

Can it contribute to better inflation performance? Issues in theory and practice

Marta Castello-Branco and Mark Swinburne



There has been considerable interest recently in increasing the independence of central banks in the formulation of monetary policy. Chile and New Zealand enacted new legislation to this effect in 1989, and several other countries in Latin America and Eastern Europe are studying specific proposals with a similar purpose. There has also been some public discussion of increased central bank autonomy in several major industrial countries. In particular, the moves toward European monetary union have brought forth proposals for an independent supranational central banking system requiring, in the view of some members of the European Monetary System (EMS), a prior move to independent national central banks.

These developments naturally raise important questions about the desirable relationship between central banks and governments (see also "The Role of Central Banks" by Richard Erb, *Finance & Development*, December 1989). The last few years have seen a growing volume of literature suggesting on conceptual, and to a lesser extent empirical, grounds that independent central banks may promote price stability. This view, however, is far from universal. Moreover, little attention has been given to the issues involved in establishing such independence in practice. This article discusses these issues on the basis of a more detailed examination of arrangements in Chile, France, Germany, Japan, New Zealand, the Netherlands, Switzerland, the United Kingdom, and the United States.

The case for independence

The argument for central bank independence is that the "credibility" of monetary policy, and hence its ability to achieve and maintain longer-run price stability with minimum real economic costs, would be improved if policy formulation were in the hands of apolitical officials who can afford to take a long-term view. The conceptual basis for this view has been formalized relatively recently in terms of the "time inconsistency" problem in monetary policy. It can be easily shown that if elected policymakers have both inflation and employment or output objectives, they may have an incentive to seek short-run output gains by reneging on previously announced noninflationary monetary policy. Similar problems arise if the policymaker's motive for relaxing monetary policy relates to income distribution or revenue issues. Assuming that the public recognizes the incentive to renege, if the policymaker cannot make a credibly binding precommitment to noninflationary policy stance, nominal interest rates will be higher, with inflationary expectations declining relatively slowly (if at all), compared to the case where the public believes the policymaker has only a price stability objective.

Possible solutions to the time inconsistency problem relate to the measures essential to convince the public that the policymaker will remain committed to a stable, noninflationary monetary policy. One option advocated by some economists is to legislate some form of fixed rule for monetary policy. Historically, the gold standard provided a form of fixed monetary rule. Other economists argue that a fixed rule would be undesirable because flexibility ("discretion") is required to allow monetary policy to react to unanticipated disturbances like supply shocks or shifts in the demand for money.

However, there is a wide middle ground between fully binding monetary rules and full monetary policy discretion, and monetary policymakers have often chosen to establish arrangements which limit, to some extent, their own scope for discretion. Examples of arrangements in this middle ground include the announcement of monetary targets or fixing the exchange rate to a low inflation currency as an external constraint. But since such arrangements are not fully binding, they do not fully resolve the credibility problem. Under a fixed exchange rate regime, for example, the credibility of the particular peg chosen becomes central, and thus the same policy issues that arise in a flexible exchange rate system—in particular, the stance of demand management policies—assume significance.

Arrangements such as the above can, however, be seen as attempts to allow for some monetary policy discretion, while improving the credibility of monetary policy by making

---

This article is based on a more detailed study entitled "Central Bank Independence: Issues and Experience", IMF Working Paper WP/91/58, available from the authors.

it more "transparent," that is, by making it clearer to the public what specifically monetary policy is attempting to achieve. More transparent monetary policy is potentially valuable because, in general, monetary policy performance can be difficult to monitor and assess. The underlying monetary relationships are only imperfectly understood, do not work mechanistically, can change over time (possibly quite sharply), and tend to involve long and variable lags between policy changes and final outcomes. Thus, it can be difficult to independently distinguish the extent to which actual developments reflect shifts in policymakers' ultimate objectives, or other factors.

Some counterarguments

It is against this background that many economists see merit in having an independent monetary authority, which would, in some sense, be more trustworthy in the exercise of monetary policy discretion. But this view is far from universal. The notion of unelected central bankers determining a major element of economic policy is sometimes seen as contrary to democratic principles. This view seems to ignore the fact that no central bank is ever completely independent of government: There are invariably a number of formal or informal channels through which governments can influence monetary policy and, in extreme cases, governments can always change central bank statutes. Another objection sometimes raised is the potential costs of conflicts between an independent monetary policy and other areas of policy, especially fiscal or exchange rate policies. However, it may well be desirable for monetary policy to be independent precisely because it brings out more clearly the costs of inappropriate policies in these other areas.

Perhaps a more fundamental concern about the value of independent central banks is that they may not actually deliver better long-run inflation performance. Insofar as central banks have their own internal objectives and motivations, they may conflict with maintaining a noninflationary monetary policy stance. For example, a number of studies have suggested that a central bank's behavior is likely to be colored by a wish to avoid conflict with the groups that have the power to influence its status and by a desire to maintain its autonomy and the scope for exercising its discretion. This body of work is a salutary reminder of political realities, suggesting that in the absence of other safeguards, there may indeed be a risk that central banks' behavior could give rise to problems of monetary policy credibility and inflation bias very similar to those that are assumed for an elected policymaker.

Although some empirical studies support the view that central bank independence promotes improved inflation performance, the evidence is not conclusive. Furthermore, there are some important "anomalous" cases where inflation performance has been superior, despite the absence of a central bank with substantial statutory independence. Japan and France are important examples. Monetary policy in Japan appears to have been more politically independent in practice than the Bank of Japan's legislation might suggest, while in the case of France, the EMS arrangements are no doubt an important external source of discipline and a partial signal of commitment to financial restraint. In countries with highly independent central banks, a basic issue yet to be adequately resolved is the extent to which ingrained social preferences for low inflation are the real cause of stronger financial discipline and better inflation performances; if such is the case, one wonders whether central bank independence makes an additional contribution to price stability.

It must also be recognized that formal legislative arrangements, usually forming the basis of independence measures in empirical studies, are not always a good indicator of actual independence. As noted above, the political leadership often has a range of methods—as well as the incentive—for exerting influence, irrespective of formal mechanisms. As a result, perhaps, monetary policy outcomes may be seen to depend critically on the particular personalities involved at a given time.

Issues involved in practice

A country considering the merits of creating an independent central bank would need to address two main questions. First, what degree of formal independence is likely to be considered desirable and realistic by politicians—and society in general—in the country in question? Even if the argument that central bank independence could improve the credibility of monetary policy is accepted in principle, the desired degree of independence is likely to depend on a number of country-specific factors. Such factors might include a country's inflation history, the nature of existing checks and balances in the political system, the level of public economic awareness and debate, and the state of development of financial markets.

Second, given the intended degree of central bank independence, what are the arrangements required to implement this degree of independence in such a way that the course of monetary policy would not depend on the individuals involved at particular times? The details of such arrangements are likely to be very important and would need to take into account the incentives under which politicians and central bankers tend to operate, and the nature of formal and informal relationships between them. The range of actual practices in these areas is summarized below.

Formal monetary policy responsibility and conflict resolution. The central bank's duty to conduct policy, at least in consultation with the political authorities, is widely acknowledged, but even in this context, varying degrees of independence for the central bank prevail. Germany's Bundesbank and the Swiss National Bank (SNB) are commonly considered as the most independent central banks: The Bundesbank is not required to take government policy into account if it is inconsistent with its statutory role of preserving stability in the external and internal value of the currency, while the SNB is required to consult the Swiss Federal Government (and vice versa) but is not required to obtain its approval. At the other extreme, central banks such as the Bank of England and the Bank of France, are advisors and implementors of monetary policy, while the responsibility for important monetary policy decisions clearly rests with the government. Of the central banks between these extremes, some may be rather more or less independent in practice than their formal statutory positions suggest (e.g., the Bank of Japan and the US Federal Reserve, respectively).

Some other central banks (e.g., in the Netherlands and New Zealand) follow a third type of arrangement, whereby the central bank has substantial monetary policy autonomy but can potentially be overruled by the government. The important point about these arrangements, however, is that any overruling of the central bank has to be done publicly. This compromise of sorts is intended to provide an effective disciplinary check on the government and a safeguard for the central bank in its relationships with the government, while still recognizing explicitly that the ultimate responsibility for monetary policy lies with the government.

Statutory objectives. In general, central banks with greater formal independence tend to have a statutory macroeconomic objective with a relatively narrow focus, which emphasizes stability in the domestic, and perhaps also the external, value of the currency. This general tendency, seen for example in Chile and New Zealand after 1989, and in Germany and the Netherlands, is explicable in terms of the desire to promote monetary policy credibility. Since the propensity of policymakers to shift between different objectives is the basis of the credibility problem, multiple or unclear statutory objectives are not likely to be consistent with this desire. Instead, they would tend to reduce the transparency of monetary policy and thus weaken the accountability of both the central bank and the political leadership—policy failure with respect to one objective could be too easily excused by reference to other objectives.

These points suggest the value of a single, clearly defined statutory objective of price stability for an independent central bank's monetary policy. For a country desiring to make a break with past monetary policy and promote greater monetary policy credibility for the future, as opposed to one where the central bank already has a well-established reputation for monetary restraint, the maximum degree of clarity in its statutory mandate is likely to be particularly important.

Monetary policy accountability and monitoring. Defining clearly the objective of monetary policy is not, by itself, sufficient for increased monetary policy credibility. It is also essential to assure the public that an independent central bank is in fact being motivated to achieve that objective. Inter alia, this requires that the public be able to monitor adequately the performance of monetary policy and hold accountable—directly or indirectly—those responsible for its formulation and implementation.

In general, and with the notable exception of New Zealand, the legislation of most central banks does not establish particularly strong accountability and monitoring mechanisms. Most of the more independent central banks nevertheless seek to provide relatively easily observable measures of performance to facilitate public monitoring of monetary policy and allow the general objective of the central bank to translate into concrete guidelines for policy. In the case of the Bundesbank and the SNB, this has been in the form of commitments to monetary aggregate targets. Membership of the EMS exchange rate mechanism in the Netherlands serves the same function. In New Zealand, an explicit target path for inflation has been established (involving a range of between 0–2 percent inflation by the end of 1993), and this is tied to what is essentially a performance contract for the Governor of the Reserve Bank. Canada has also established such an inflation target path recently, though without the same legislative backing as in New Zealand, and similar proposals have been considered for the United States.

Role, composition, and appointment of central bank boards. The role and composition of central bank boards can have an important influence on the nature of the relationship between central banks and governments. In some cases, the boards represent a formal channel for the government to exert some influence directly on central bank decisions. Governments effectively appoint the majority, if not all, of the members of central bank boards, and there may also be *ex officio* or advisory board members representing the government or treasury explicitly. However, in banks that have a greater degree of independence, there are generally some limitations on the government's appointment (and dismissal) powers. Such limitations include provisions for nongovernment appointments, nongovernment involvement in the appointment procedures, or relatively long and staggered terms for directors to reduce the scope for governments to load central bank boards with their own appointees.

Limits on financing of government. A potentially important aspect of monetary policy independence may be the extent of legal constraints on central bank funding of the government. Chile has unusually tight restrictions, prohibiting any direct or indirect central bank financing of public expenditure (except under wartime conditions), and any central bank purchases of paper issued by the government, its agencies, or enterprises. In other countries, such as Germany, Switzerland, and the Netherlands, the legislation sets strict limits on direct central bank credit to Government, but allows government paper to be acquired in the course of open market operations.

Marta Castello-Branco
Brazilian, is an Economist in the IMF's Central Banking Department. She holds a PhD from Princeton University.

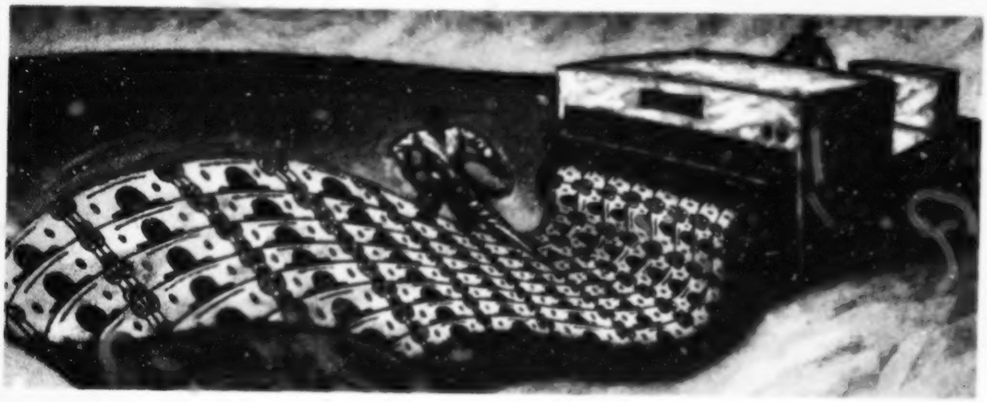
Mark Swinburne
from New Zealand, was an Economist in the IMF's Central Banking Department. He is now with the Reserve Bank of New Zealand.

Though they may be important in presentation, the technical effectiveness of statutory limits on credit to government is somewhat dubious. In practice, they may not be particularly effective when the central bank is not independent and may not be necessary when the central bank is independent, with a clear responsibility for monetary stability. However, statutory limits could still prove useful in promoting monetary restraint in the case of a nonindependent central bank in a country with relatively less well-developed financial markets—if these limits are actually respected.

Central bank budgetary independence. Irrespective of the degree of monetary policy independence, central banks commonly have substantial financial independence from their governments and, in particular, can usually set their own expenditure budgets. Exceptions include France, Japan, and New Zealand. A potential concern for a bank with policy independence is that, in the absence of accompanying budgetary independence, a government could indirectly exert undue influence on the bank's policy by restricting its access to resources. In New Zealand, this concern is reduced because the funding agreements negotiated with the government cover five years, rather than requiring an annual budgetary approval. On the other hand, where a central bank is clearly carrying out the government's monetary policy, there appears to be no compelling policy argument for financial independence.

Conclusion

Although the empirical evidence so far is less than compelling, on conceptual grounds it can be argued that central bank independence does have the potential to improve longer-run inflation performance. The major point to emphasize, however, is that the detail of the institutional framework is likely to be an important determinant of the contribution that formal central bank independence can make in practice to price stability, and indeed, even to the sustainability of such formal independence. In particular, a great deal may depend on the nature of informal institutional and political arrangements and the incentives under which central bankers and politicians operate. Therefore, the framework as legislated may need to pay close attention to the structuring of these less formal aspects of government-central bank relationships, through, inter alia, appropriate arrangements for settling monetary policy objectives or targets, and for maximizing the degree of monetary policy transparency. This is likely to be of particular importance for a country attempting to build policy credibility against a historical background of variable and generally insufficient monetary restraint. ■



Progress Report on Heterodox Stabilization Programs

Why some countries succeeded while others eventually failed

Miguel A. Kiguel and Nissan Liviatan

In the mid-1980s, a number of countries suffering from chronic high inflation—typically in the three-digit range—adopted what are now widely known as the "heterodox" stabilization programs. The main innovation was the inclusion of income policies (that is, temporary wage and price controls). The idea was to bring down inflation quickly at the outset, without incurring high costs, in terms of unemployment and output. In all other respects, the programs were very orthodox, centered on reducing budget deficits and restraining the growth of the money supply.

Of the countries that experimented with the heterodox approach, the best-known ones are Argentina (the 1985 Austral plan), Israel (the 1985 stabilization program), and Mexico (the 1987–88 Solidarity Pact, the Pacto). Brazil's 1986 Cruzado plan is sometimes put in this category, but it sharply differs from the others in that it bypassed from the outset the much-needed adjustment in the fiscal accounts.

Soon after these programs were implemented, the use of income policies—combined with the orthodox approach—looked to be an extremely promising alternative. Its success rate was high, and the costs, in terms of recession or unemployment, were low. With a few more years behind us, however, the verdict has changed somewhat. For some of these countries, notably Israel and Mexico, inflation has remained relatively low, at around 20 percent per year. But the costs—in terms of high interest rates, slow recovery of growth, and loss in external competitiveness—have been much higher than originally anticipated. Moreover, the removal of controls has proved difficult, there has been a loss in exchange rate flexibility, and the process of consolidating low inflation has been time-consuming (over two years in Mexico and even longer in Israel). For others, such as Argentina (and Brazil), income policies have proved counter-productive, because they were not supported by a sustained fiscal effort. Indeed, after the Austral (and Cruzado) plans failed, hyperinflation returned and with an unprecedented vengeance.

This article re-examines the record of these programs (see "Some Lessons from 'Heterodox' Stabilization Programs," by Mario I. Blejer and Adrienne Cheasty, *Finance & Development*, September 1988, for an earlier assessment), taking advantage of the time that has now elapsed. Our conclusion is that income policies of the type used in the heterodox programs should only rarely be applied (i.e., under very specific circumstances), and even then, with a great deal of care.

Rationale for income policies

To understand the reasons that lead policymakers to include income policies in a comprehensive disinflation program, it is useful to step back and analyze the causes of high inflation, as well as some of the specific problems that any disinflation program would face. It is clear that the main cause has been the tendency of governments to try to finance their hefty fiscal deficits through simply printing money. But complicating matters has been the fact that once high inflation becomes chronic (e.g., after three years), the economies develop numerous mechanisms, such as asset and wage indexation, that tend to perpetuate existing inflation rates.

Under these circumstances, the announcement and implementation of serious and comprehensive stabilization programs usually leads to modest reductions in inflation. But the costs are typically large, because these economies start from very high inflation rates. Moreover, the pace is usually quite slow, in large part because there is often already a long history of failed stabilization attempts, meaning that any new stabilization program—even if well-designed—is received

---

This article is based on a longer paper, "When Do Heterodox Stabilization Programs Work?," World Bank Research Observer, *January 1992.*

with skepticism by the public. The problem is that if the public does not believe that the program will succeed in bringing down inflation, inflation will then display a significant rigidity, or inertia. This occurs because firms and workers have the ability to set their prices and wages in advance, based on what they expect inflation to be in the near future. To the extent that the government cannot convince the public that the program will reduce the budget deficit in a sustainable manner and hence that it will work, inflation will only come down slowly, and this, in turn, may result in a sharp decline in output and the abandonment of the program.

The inclusion of income policies is aimed at breaking the inflation inertia that arises from adverse expectations. But price and wage controls can only be justified in situations where (1) the government starts a serious stabilization program and is fully committed to bringing down inflation, (2) the government undertakes the necessary fiscal adjustment, and (3) the public remains skeptical and continues to set prices on the assumption that the program will fail.

The available evidence indicates that income policies have been extremely effective in bringing about rapid, drastic reductions in inflation. But as the chart shows, the initial successes were sustained only in those countries that undertook and persevered with a fiscal adjustment (Israel and Mexico), while they were short-lived in those where the reduction in the budget deficit was temporary (Argentina), or where there was no adjustment to speak of (Brazil).

Exactly how the controls work, however, is rather puzzling. Because in general they did not lead to shortages or marked distortions in relative prices, one could argue that the controls were not binding and thus perhaps of dubious necessity. Yet earlier programs in these countries, which were devoid of any controls, always failed to bring about a sharp, rapid reduction in inflation. In our view, the controls serve largely as a coordinating mechanism—the announcement that controls are in place is enough to reverse short-term inflationary expectations, thus allowing the economy to move permanently to a situation of low inflation. Moreover, if the fiscal adjustment is implemented, as was the case in the successful programs, there is no reason for shortages to occur, as there are no excess demand pressures. The idea that the controls worked because they "repressed" inflation is simply misleading, mainly because these governments did not have the administrative capacity to enforce them.

But the initial drop in inflation must be seen for what it is: the easy part. The real difficulties come later on, when controls have to be removed and stabilization needs to rely entirely on orthodox policies. It is during this second phase that the initial reductions in inflation were quickly reversed in those countries that did not adequately address the fiscal imbalances and were difficult to sustain in those that did address them. Moreover, even in the more successful countries, success has come at a price. It is thus necessary to take a longer time horizon to evaluate the costs of bringing down inflation through a heterodox stabilization program.

Advantages of heterodox programs

On the benefits side, experience shows that high inflation countries stand to gain the most from income policies. It is there that inflationary rigidities typically are the strongest and the fall in inflation the largest.

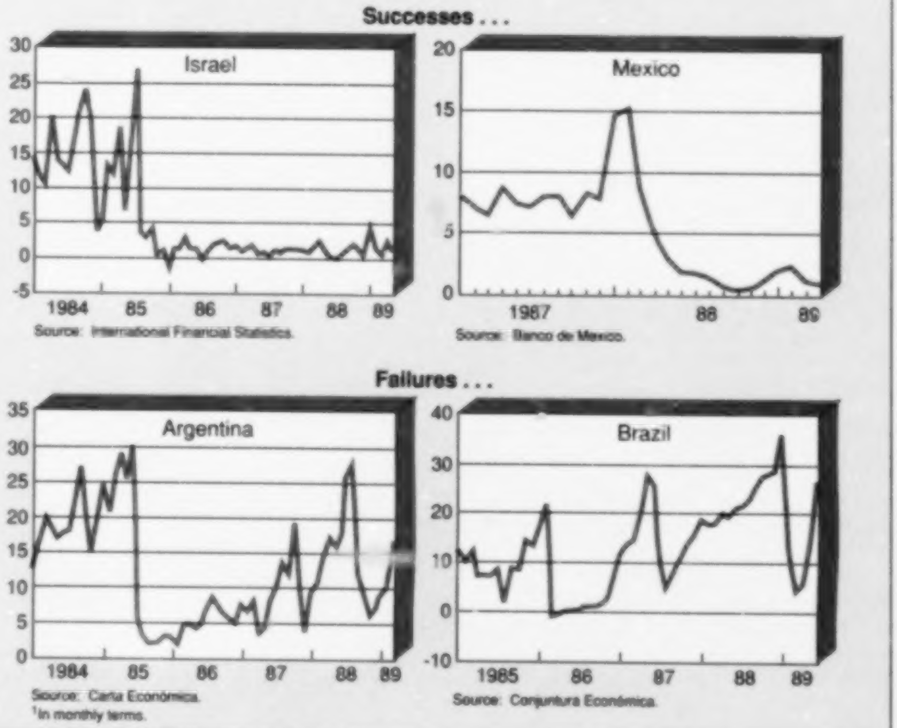
Low initial costs of bringing down inflation. This is perhaps the most attractive aspect of heterodox programs. In the first phase, thanks to price and wage controls, inflation falls, usually dramatically, with little or even no increases in unemployment. In fact, Argentina and Israel experienced relatively high rates of growth in 1986 (the year immediately after the stabilization programs began), while in Mexico, the Pacto did not elicit any additional recessionary effects.

Potential revenue gains on the fiscal side. It is well known that sudden increases in inflation usually lead to a fall in fiscal revenues (the so-called Olivera-Tanzi effect). But the Olivera-Tanzi effect also works in reverse following a sudden reduction in inflation. This is most promising for countries where inflation is high and the increase in revenues could be significant. Although the size of these gains are difficult to measure, in Israel it was estimated to be around 1.5 percent of GDP, and in Argentina, around 2 percent.

The gains, while potentially significant, should be treated with caution, as they are not a "true" signal of the fiscal effort. A program that bases most of the fiscal improvement simply on greater revenues from this effect is likely to fail, since the lower deficit will remain in place only if the government succeeds

How inflation fared under the heterodox programs

(In percent)[1]



Source: International Financial Statistics.

Source: Banco de Mexico.

Source: Carta Económica.

[1] In monthly terms.

Source: Conjuntura Econômica.

in keeping inflation low. Any shock that destabilizes inflation will increase the deficit, making the inflationary process self-sustaining. Further, to the extent that public sector enterprise prices are not adjusted during the period of controls, there will also be a deterioration in their finances. This means that the gains from the reversed Olivera-Tanzi effect should constitute a relatively small part of the fiscal adjustment. In Israel, for example, it is estimated that this represented a quarter of the improvement in the fiscal accounts, and in Mexico, it was not very important, but for Argentina, it played a major role, especially for the public sector enterprises.

Better ability to judge the fiscal adjustment. This occurs for two reasons. First, it gives the government some breathing time to demonstrate its commitment to the fiscal adjustment. As a result, even if the public is initially skeptical, inflation will not be immediately rekindled because the freeze is in place. However, the government should move quickly to close any fiscal gap, as this period is usually short. Second, low inflation makes it easier to calculate the size of the budget deficit, thereby rendering the stabilization process more transparent. Under high inflation, this calculation is difficult, as there is more room for using accounting tricks to mask the true state of the fiscal accounts. Indeed, Israeli officials now credit the reduction in inflation with helping them keep track of the evolution of the fiscal accounts.

More momentum to stabilization. Not surprisingly, the public will be more willing to support a program that is showing positive results early on than one that just promises lower inflation some time in the future. This means that the initial fall in inflation might make it easier for governments to introduce additional measures to strengthen the program, such as cuts in government expenditures, or increases in taxes. But it could also work in the opposite direction, as occurred in Argentina under the Austral plan, when, despite widespread support, the Government did not implement additional measures to make the initial fiscal adjustment more robust.

Disadvantages of income policies

On the other side of the ledger, the drawbacks are also significant, raising the risk of not persisting with the program after the early successes.

High later costs of bringing down inflation. Many of the costs that were avoided in stage one through the imposition of controls emerge later on, when controls are relaxed. At this point, the exchange rate takes over as the main nominal anchor trying to hold down inflation, which is now market determined. The initial low costs then turn into high ones, as the real exchange rate appreciates, leading to a recession, a loss of competitiveness (which hurts the export sector), and high interest rates (which are necessary to maintain attractive rates of return on domestic assets to avoid capital flight).

But the difficulties do not stop there. One of the trickiest phases then sets in, as the overvaluation that took place during the period when controls were relaxed needs to be corrected without losing control of the main nominal anchor. While a large devaluation could restore competitiveness, the risk is a loss of confidence about the government's willingness to sustain the stabilization program. A large devaluation could be read as an indication that the government is not prepared to pay the costs resulting from overvaluation and instead is ready to accept a rekindling of inflation. This very problem has continued to bedevil both Israel and Mexico, with neither of them able to overcome the real appreciation of their currencies. Israel has been trying to avoid further appreciations through unannounced step devaluations (mostly in the 10 percent range), while Mexico has opted for a pre-announced crawling peg (of the type used in the Southern Cone of Latin America in the late 1970s).

Disregard for fiscal adjustment. The danger here is that the favorable initial results on inflation and unemployment create a tendency for complacency on the fiscal side, potentially undermining the success of the program. "Populist" programs are an extreme case, as they try to disinflate without making the needed fiscal adjustment; in fact, in some cases, fiscal policy even turns expansionary. This is what happened under the Cruzado plan, when the combination of controls and generalized excess demands rapidly led to repressed inflation, widespread shortages, and the emergence of black markets. In the end, of course, there was an explosion in prices, which had to be stopped through a new round of price and wage controls.

One way of helping to clearly signal the government's commitment on the fiscal side is to "overadjust"—that is, tighten up in the short run more than would have been required in the long term, perhaps even to the point of running a surplus. This is useful for two reasons: (1) to show unambiguously that this is a serious heterodox program, not a populist one; and (2) to help reduce aggregate demand, which is critical if shortages are to be avoided during the period of controls.

In practice, the differences between heterodox and populist programs become apparent shortly after the launching of the programs. Key distinguishing features are the attitude toward real wages, the importance attached to fiscal (and sometimes monetary) policy, and the fact that generalized shortages do not emerge in heterodox programs. However, it has been much more difficult to distinguish between those programs that eventually succeeded (the "persistent" programs) and those that started as heterodox programs but were later abandoned (the "not-persistent" programs). In fact, the evolution of macroeconomic variables during the initial stage of the Austral plan and the Israeli program was remarkably similar, while shortages did not arise in either of them.

Distortionary impact of price controls. Another criticism is that controls lead to a misallocation of resources. While this is valid for countries that use controls on a long-term basis, it is not necessarily the case for heterodox programs, which call for only temporary controls. In addition, in most heterodox programs, controls have not been used in a rigorous manner. Argentina, for example, allowed firms to raise prices whenever it was clear that their prices were out of line.

Difficulties in removing controls. A more-often raised—and valid—criticism is that once implemented, controls are difficult to remove. While the government might be aware that controls need to be removed, it is also worried that the removal might rekindle a new inflationary spiral. The key is to remove controls gradually and selectively, as was done in Israel and Mexico, perhaps starting with sectors where it is clear that there are no pressures for price increases.

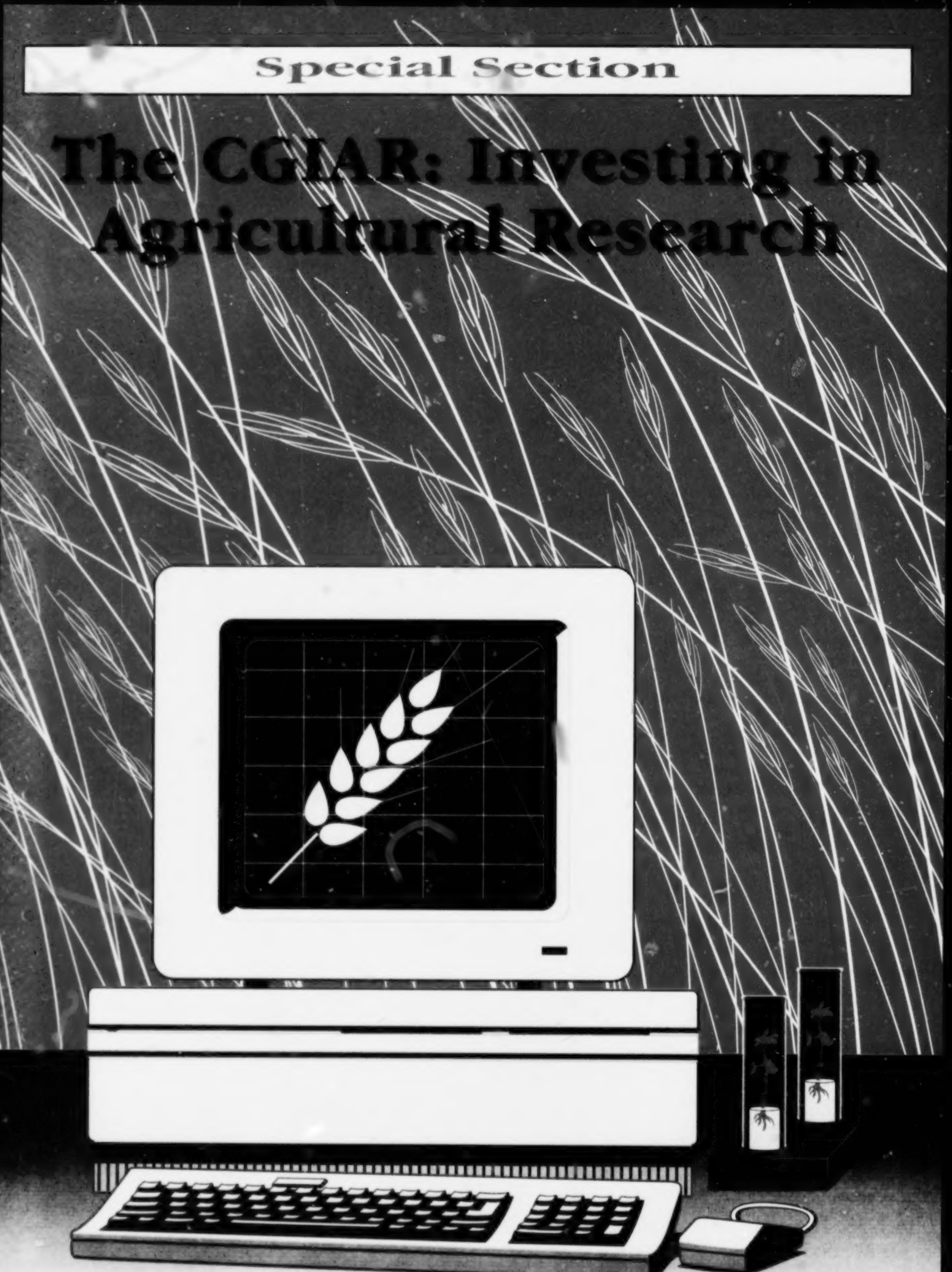
Difficulties in assessing progress. It is always hard to determine at the outset whether a stabilization program will succeed. This is true for both orthodox and heterodox programs. In Bolivia, for example, the August 1985 orthodox program, which brought hyperinflation to a halt, had been preceded by other similar stabilization efforts that had failed. And even this successful program confronted a serious reversal, albeit temporary, toward the end of the year when hyperinflation re-emerged.

This difficulty in recognizing successes is compounded in heterodox programs by the fact that low inflation is maintained initially through controls. In the absence of market-determined prices, it is harder to evaluate whether the program is working because the fundamentals are in order and low inflation is there to stay, or because controls are "repressing" inflation. The answer to this question must wait until controls are removed and inflation finds its new equilibrium. In the meantime, the credibility problem is bigger in a heterodox program.

(Continued on page 37)

Special Section

The CGIAR: Investing in Agricultural Research



New Directions for the CGIAR

From famine prevention to sustainable development

Alexander von der Osten-Sacken

When the Consultative Group on International Agricultural Research (CGIAR) was founded 20 years ago, its principal objective was to increase the supply of food as fast as possible to stave off the spectre of mass starvation, which had been a reality in parts of South and East Asia in the 1960s and, according to some analysts of those days, was an imminent threat to most of the Third World. In fact, Paul Ehrlich, in his book *The Population Bomb* (1968), predicted terrible famines for the 1970s and thereafter.

Fortunately, these predictions failed to materialize. The Green Revolution—the development of new high yielding varieties of wheat and rice—brought food self-sufficiency and even surpluses to former food deficit areas, especially in Asia. The gains in crop production, mainly through the work of the first two international agricultural research institutes—The International Rice Research Institute (IRRI) and the Centro Internacional de Mejoramiento de Maiz y Trigo (CIMMYT) for wheat and maize—encouraged a group of international organizations (The World Bank, the UN Food and Agriculture Organization, and the UN Development Programme as so-called cosponsors), private foundations (Rockefeller and Ford), and governments to create an umbrella structure, the CGIAR, to support and guide the existing institutes and to establish other international research centers to deal with pressing development needs of Third World agriculture.

Twenty years of work of the Group have since helped to increase food crop productivity in most developing countries, along with a range of other benefits, such as conservation of natural resources, higher farm income, reduced prices of food, better food distribution systems, improved animal production, better nutrition, more rational agricultural policies, and stronger institutions. Today, some 40 donors of the CGIAR system jointly support a network of 17 international research centers to ensure that top scientific capacity is brought to bear on the problems of the world's disadvantaged people. With total annual core funding of about $250 million—supplemented by project funding of roughly $50 million a year—about 1,700 senior scientists among a total staff of some 15,000 pursue a complex set of six broad objectives:

Productivity research. Stepping up agricultural production through increased productivity has remained a top priority. Improved crop varieties (such as the "dwarf" varieties of wheat and rice, which were critical to Asia's Green Revolution) with better resistance to pests and diseases are essential, not only to sustain past gains but also to build future productive capacity. At the same time, research to improve soil and water management, fertilizer use, crop management, and other related areas continues to be important for increasing the potential yields of crops.

Management of natural resources. The productivity of natural resources (i.e., soil and water relationship, soil fertility, and plant protection) on which agriculture depends needs to be protected and preserved. New sectors of research such as the institutes for agro-forestry and forestry, irrigation management, and fisheries have either recently been added to or are being integrated into the CGIAR system, while the International Board for Plant Genetic Resources (IBPGR) is expected soon to become an autonomous member of the Group.

Institution building. The full benefits of international agricultural research cannot be attained unless there are strong national agricultural research systems that adapt the results of research to national and local conditions and requirements. The CGIAR has therefore given high priority to institution building and training as well as the transfer of technology by helping managers develop their skills in research policy, organization, and management. About a quarter of CGIAR core funds is spent on institution building.

Improving the policy environment. Given the importance of each country's agricultural sector and the widespread ramifications of national agricultural policy, improving developing countries' capacity for policy analysis offers substantial benefits. The Consultative Group is assisting governments in formulating and carrying out better policies on sustainable food and agriculture production and related research. In particular, the International Food Policy Research Institute (IFPRI) has established a network of collaborators in national ministries of planning, economic policy, development finance, and trade, as well as in central banks, universities, and other international agencies.

Germplasm conservation. Partly in pursuit of their crop research function, and partly as a separate endeavor to collect and conserve germplasm (genetic material), CGIAR centers have since 1975 built up the world's largest collection of plant genetic resources. The IRRI and the CIMMYT led the way with their work with wheat and rice. Other centers have joined in by collecting and maintaining world collections of the most important food crops and ensuring that those plant materials are made available to all countries and organizations that request them, as a common property of humankind, held in trust for current and future generations.

Specific activities, such as those of IBPGR, include the acquisition of crop germplasm that is threatened by genetic erosion or is not adequately represented in existing collections, along with the rapid transfer of that material to suitable storage facilities. Apart from collecting and conserving plant genetic resources, the centers play a major role in characterizing and evaluating collected germplasm and facilitating its exchange and use once it has been safely deposited in active collections. The CGIAR places a high priority on supporting relevant research on plant genetic resources, both at its own institutes and through collaborative projects with appropriate institutions around the world.

Building linkages. In the 20 years of its existence, CGIAR has helped to build and strengthen the global system of agricultural research, comprising university and private sector laboratories and institutes in the industrial world, as well as national institutions and extension services in developing countries. In this context, organizing and compiling a thorough and accurate global data base on national agricultural research systems is a major achievement of the CGIAR.

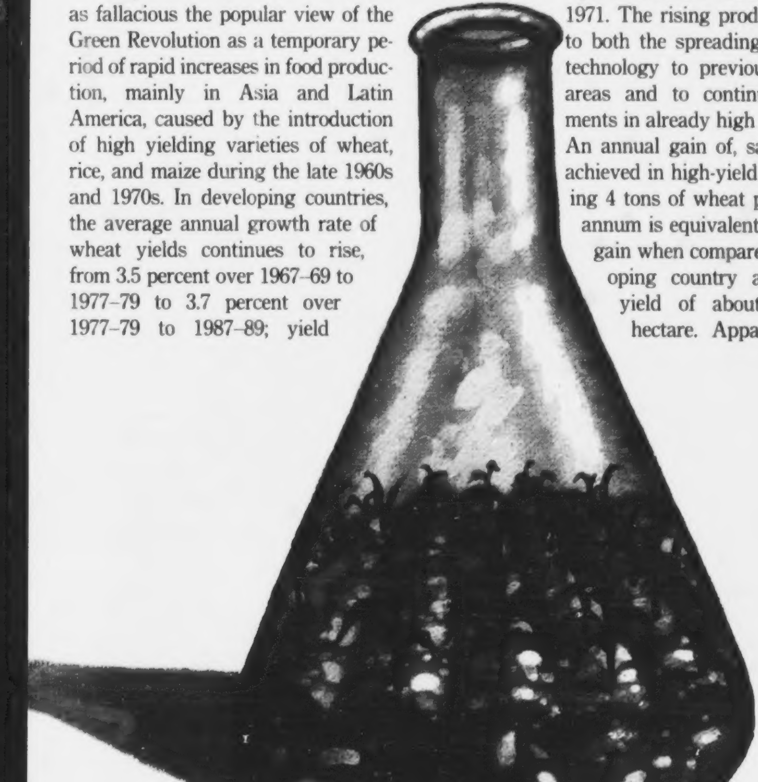
Due to its continuing success, the mandate of the CGIAR has changed over time. The idea of a short-term, highly informal device to be dissolved after it had initiated the Green Revolution has been abandoned in favor of a permanent centerpiece and engine of the global agricultural research system. This structure allows scientific achievements to be communicated and adapted to field level conditions with increasing speed.

Impact of research

Analysis of recent data reveals as fallacious the popular view of the Green Revolution as a temporary period of rapid increases in food production, mainly in Asia and Latin America, caused by the introduction of high yielding varieties of wheat, rice, and maize during the late 1960s and 1970s. In developing countries, the average annual growth rate of wheat yields continues to rise, from 3.5 percent over 1967–69 to 1977–79 to 3.7 percent over 1977–79 to 1987–89; yield growth in rice production in Asia is similar, from 2.2 percent to an estimated 2.3 percent over the same periods, according to FAO statistics. Much of the progress in average yields is certainly attributable to the impact of international and national crop research and extension work, which managed to keep yields far ahead of the deterioration of natural resource endowments, such as soil fertility and water quality, and the ever increasing virulence of plant pathogens and pests.

This explains why food production, especially in densely populated Asia, has kept pace with population and income growth even during the economically turbulent 1980s, which were considered by many a "lost decade" for development; a decade which, incidentally, saw increasing concern with the level of maximum yields. For example, maximum yields in Southern latitudes obtained on experiment stations have, in recent years, leveled off and even begun to decline, for several reasons, including the limits on biological potential and environmental stress.

The continuing advances in major foodcrop productivity, however, are impressive. Due to the higher yield levels already achieved, a 3.5 percent average annual yield increase now constitutes a much larger additional quantity of output per hectare than a similar yield increase achieved in, say, 1971. The rising productivity is due to both the spreading of high yield technology to previously low yield areas and to continuing improvements in already high yielding areas. An annual gain of, say, 1.5 percent achieved in high-yield areas harvesting 4 tons of wheat per hectare per annum is equivalent to a 3 percent gain when compared to the developing country average wheat yield of about 2 tons per hectare. Apparently modest progress in experimental yields can hence translate into a large impact on total production.



Over the years, national research systems, in collaboration with the CGIAR centers, have produced hundreds of new varieties of cereals, legumes, and other crops. Many of these new plant varieties have proved to be well-suited to local environments in developing countries.

Wheat. Modern varieties of wheat (largely developed by CIMMYT and its predecessors in cooperation with the Mexican and later, Indian national programs) have been used extensively by farmers in the developing world, bringing with it the observed surge in wheat production. By 1990, about 50 of the 69 million hectares of wheat area harvested in developing countries, not including China, were planted with improved varieties of wheat, of which 37 million hectares were varieties directly derived from CIMMYT's work.

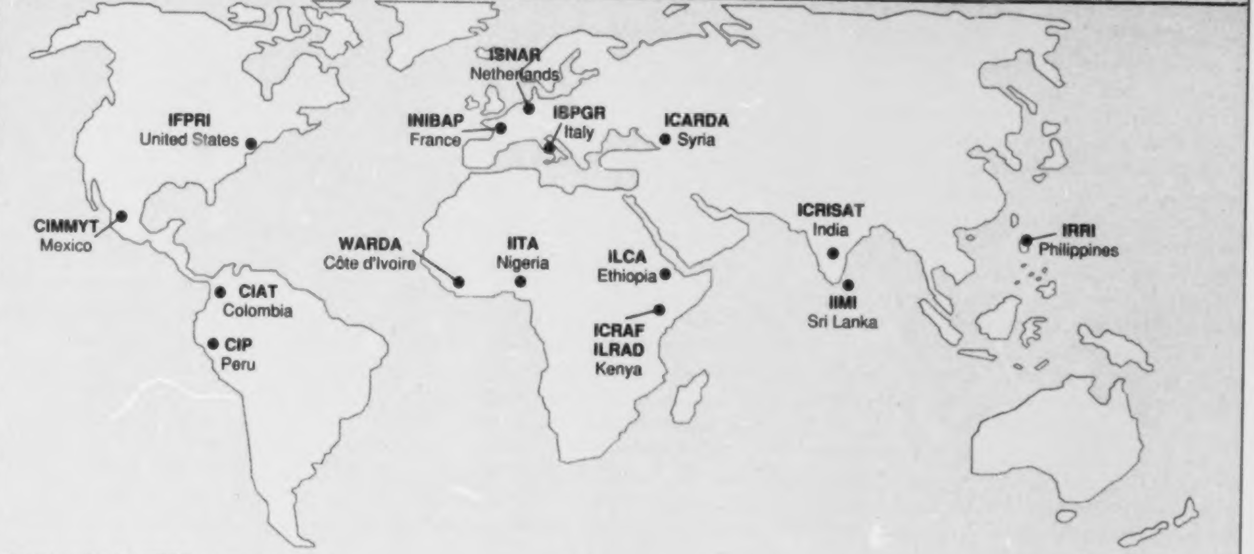
Rice. New varieties of rice produced at IRRI and CIAT, about 300 of which have been further refined by plant breeders in the developing countries, have become dominant in the developing world's rice-growing regions. In several developing countries, including Colombia, Honduras, Indonesia, the Philippines, Senegal, Sri Lanka, and Venezuela, modern rice varieties are being raised on more than 70 percent of the countries' rice lands.

Other crops. Beyond rice and wheat, the plant-breeding work of the centers, in conjunction with research in developing and industrial countries, has led to more than 200 new varieties of maize, as well as other food crops that are important in parts of the developing world—cassava, field beans, potatoes, pearl millet, sorghum, and cowpeas. New varieties of other field crops, including barley, chickpeas, pigeon peas, and sweet potatoes—have also been bred. Since these are crops largely associated with the more recently established centers, most of their varieties have been available for only a few years and have not yet been introduced at the farm level to the same extent as wheat and rice.

The centers, often through joint efforts with scientists at research agencies in both developing and industrial countries, have devised and adapted many new and improved farming techniques. Promising techniques include:

- Integrated pest management aimed at reducing pesticide use by combining more resistant crop varieties with biological control methods using natural predators of pests and precise timing of pesticide applications. Perhaps the most spectacular example of successful biological control has been the cas-

The CGIAR global network



Note: Location for CIFOR not yet determined.

CIAT—Centro Internacional de Agricultura Tropical. Main focus is on crop improvement and improving agriculture in the lowland tropics of Latin America, in the savannahs, forest margins, and on hillsides. Research covers rice, beans, cassava, forages, and pasture.

CIFOR—Center for International Forestry Research. Location to be determined. Research will cover forestry issues related to agriculture and sustainable land use.

CIMMYT—Centro Internacional de Mejoramiento de Maiz y Trigo. Research covers maize, wheat, barley, and triticale, with emphasis on food production in developing countries. Maintains two genebanks, one for maize and the other for wheat.

CIP—Centro Internacional de la Papa. Focus on potato and sweet potato improvement. Research covers potato and sweet potato.

IBPGR—International Board for Plant Genetic Resources. Focus on conserving genepools of current and potential crops. Research covers plant genetic resources.

ICARDA—International Center for Agricultural Research in the Dry Areas. Focus on improving farming systems for North Africa and West Asia. Research covers wheat, barley, chickpea, lentils, pasture legumes, and small ruminants.

ICRAF—International Council for Research in Agroforestry. Focus on initiating and supporting research on integrating trees in land-use systems in developing countries.

ICRISAT—International Crops Research Institute for the Semi-Arid Tropics. Focus on crop improvement and cropping systems. Research covers sorghum, millet, chickpea, pigeonpea, and groundnut.

IFPRI—International Food Policy Research Institute. Focus on identifying policies for meeting developing countries' food needs. Research covers all aspects of policy analysis, especially sustainable food production and land use.

IIMI—International Irrigation Management Institute. Focus on performance of irrigation in developing countries. Research covers institutional conditions for managing irrigation systems and facilities; management of water resources, and irrigation support to farmers.

IITA—International Institute of Tropical Agriculture. Focus on crop improvement and land management in humid and sub-humid tropics. Research covers maize, cassava, cowpea, plantain, soybean, rice, and yam.

ILCA—International Livestock Center for Africa. Focus on farming systems to identify livestock production and marketing constraints in Sub-Saharan Africa. Research covers ruminants, livestock, and forages.

ILRAD—International Laboratory for Research on Animal Diseases. Focus on control of major livestock diseases in Sub-Saharan Africa. Research covers theileriosis (East Coast fever) and animal trypanosomiasis.

INIBAP—International Network for the Improvement of Banana and Plantain. Research covers germplasm exchange and breeding, testing, and pathology research.

IRRI—International Rice Research Institute. Focus on global rice improvement.

ISNAR—International Service for National Agricultural Research. Focus on strengthening and developing national agricultural research systems.

WARDA—West Africa Rice Development Association. Focus on rice improvement in West Africa. Research covers rice in mangrove swamps, inland swamps, upland conditions, irrigated conditions.

sava mealybug campaign in Africa over the past few years. The International Institute of Tropical Agriculture (IITA), the International Center for Tropical Agriculture (CIAT), and the International Institute for Biological Control in the United Kingdom joined in a massive research effort that enabled many African countries to control a devastating insect pest of one of Africa's staple foodcrops—cassava—saving billions of dollars annually in production that otherwise would have been lost.

- Integrated soil fertility management achieved through the use of appropriate soil nutrients, mulching, composting, application of animal manure, and protection of land against wind and water erosion. An example of improved land use is provided by the CIAT savanna development program aimed at taking pressure off closed forest areas like the Amazon basin. By introducing rotation of dryland with pastures, unproductive acid soils are becoming productive. Their soil fertility is improved through mulching and the ability of pasture legumes to fix atmospheric nitrogen.

- Agroforestry, or the growing of crops, trees, and animals together, provides options to answer pressing farming and environmental problems from shortage of fuelwood, timber, and fodder to protection of soil, crops, and animals.

New directions—sustainability

Until recently, the public image of the CGIAR was largely one of a crop-oriented, scientific mechanism creating progress to boost food supplies. The need to increase productivity has neither changed nor diminished, but research designed to increase food output is being balanced with research to protect and preserve the basis of production.

The Group, following recommendations of its main scientific counsel, the Technical Advisory Committee (TAC), began in 1988 to review the orientation and priorities of CGIAR's work. The aim was to improve the sustainability of agricultural development—the successful management of resources for agriculture to satisfy changing human needs, without degrading the environment or the natural resource base on which agriculture depends. CGIAR has identified key research areas that will contribute to more sustainable practices:

- conserving and utilizing genetic resources;
- managing pests, diseases, and soil fertility in ways that would help reduce the use of harmful chemicals;
- maintaining productivity growth in already productive areas, while promoting growth in less productive areas; and
- dealing with soil degradation.

While the CGIAR was undergoing this major reorientation, similar topics appeared on the agenda of the worldwide preparations for the UN Conference on Environment and Development (UNCED) in Rio de Janeiro (June 1992)—the "Earth Summit." The Group is centrally placed in at least three of the major operational sectors of UNCED: management of plant, animal, and forestry genetic resources; sustainability of agricultural development; and capacity building. These broad topics also include the transfer of technology, especially biotechnology, agricultural research for climate change, and forestry research. While conservation of genetic and other natural resources is an important requirement of the future, it is clear that work for sustainable development—with agriculture as its centerpiece—will be the main thrust of the CGIAR's contribution.

Alexander von der Osten-Sacken
from Germany, is Executive Secretary of CGIAR. He was Director General of ISNAR and Executive Secretary of the Technical Advisory Committee (TAC) at FAO in Rome prior to joining the World Bank.

Overall, however, the CGIAR will be expected to continue to ensure a "permanent Green Revolution" to keep up basic food supplies in the face of population and income growth, increased virulence of plant diseases, as well as environmental and climatic stress. At the same time, there is a need to face up to the challenges of "Agenda 21," the proposed Earth Summit program for the coming century. While suitable institutional arrangements for the permanent Green Revolution exist in the form of the global system of agricultural research, no such structure is yet apparent to facilitate the delivery of the agriculture-related aspects of "Agenda 21." It is therefore essential that UNCED encourages the creation of an appropriate and comprehensive global research system to be closely linked with the existing global system of agricultural research. ■

Do you wish to receive FINANCE & DEVELOPMENT regularly?

New readers must either type or print in capital letters their names and addresses and identify their professional category from the list given at right.

Current readers are requested to send us their latest mailing label or previous address when requesting a change of address.

Mark one:
New reader ☐ Current reader (new address) ☐

Name ______________________ ______________________
(First) (Last)
Organization ______________________
Street/P.O.Box ______________________
____
City ______________ State/Province ______________
Country ______________ Postal Code/Zip Code ______________

Finance & Development is normally sent without charge by surface mail, but for faster service, air delivery is now available for US$20 (advance payment required).
American Express, MasterCard, and Visa credit cards accepted.

Publications Services, *Finance & Development*
International Monetary Fund
Washington, DC 20431 USA

Telephone: (202) 623-7430
Telefax: (202) 623-7201

Professional category (Mark one only)
1☐ College student
2☐ Central bank
3☐ Finance ministry
4☐ Commercial bank
5☐ Other financial institution
6☐ Planning agency
7☐ International or regional organization
8☐ Public library
9☐ Faculty—college or university
10☐ Other government agency
11☐ Nongovernmental organization
12☐ News media
13☐ Private enterprise
99☐ Other

Challenges for Global Agricultural Research

Searching for sustainable and environmentally safe food production systems to feed the growing population of the world

Robert O. Blake

Chairman, Committee on Agricultural Sustainability for Developing Countries

Twenty years ago, and in the face of growing populations and food shortages in South Asia, the world's spirits were boosted by news of India's and Pakistan's seemingly sudden success in launching the "Green Revolution." Both these countries introduced highly productive varieties of wheat and rice, employing new methods in the use of more and better chemical fertilizers, improved irrigation, and pesticides. As a result, countries that once feared famine began to produce enough to meet their needs, and even export.

As has happened so often, history is now repeating itself. An agricultural crisis is again looming on the horizon. But this time it has a global dimension, and policymakers worldwide must face a potentially explosive conflict of choices. New ways must be found to increase agricultural production by nearly 50 percent in the next two decades. This must be done, however, without depleting the earth's soil and water resources, which will be needed to meet greater demands in the future.

Traditional agriculture may not be able to meet this challenge. This means that once again, international agricultural researchers and their national colleagues are being called on to play a major role in fashioning sustainable and productive agricultural systems for the planet.

Fortunately, this time, there are not 2 but 17 international agricultural research centers—all operating under the leadership of the Consultative Group on International Agricultural Research (CGIAR)—and another dozen centers that are cooperating with them or are in the process of being set up. Even more important, there is a qualitative change of focus in the centers' research: increasingly, scientists are being asked by their financial backers and by the CGIAR's Technical Advisory Committee (TAC), which coordinates their research, not only to develop sturdier and more productive plants but also cost-effective and labor-effective ways to protect and improve soils and conserve water. They are also giving more attention to environmental concerns by helping small farmers and farmers working on marginally productive lands. This truly represents, as the popular press has said, a "greening of international agricultural research" and of CGIAR.

What has brought all this about? There has been outside pressure, of course. But, principally, this shift has come as a healthy internal response by the international agricultural research community to some very frightening and challenging realities:

- Agricultural productivity and production must continue to accelerate at an unprecedented rate for at least the next four decades, particularly to help the poor countries of the tropics feed their rapidly growing populations.
- Chemical inputs (pesticides, herbicides, and fertilizers) may be too expensive, unavailable, and, in the case of misused pesticides, dangerous for the farmers in developing countries. Yet, much of the increased world food production must come from these farmers.
- Very little additional irrigated land can be brought into production, barely making up for the cultivable land being lost to salinity and waterlogging.
- Too many national agricultural research and extension systems in the developing world have become underfunded, overly politicized, and hence, ineffective, over the years. These weakened systems, therefore, are not strong enough partners for the international agricultural research centers. Even some of the best national centers—in Brazil, Mexico, and the Philippines—have deteriorated in the last decade as debt-ridden governments have cut support.
- Developing countries cannot rely on their most fertile lands alone for food and other agricultural produce. They must also sustain production on poorly endowed lands, where farming is often difficult because of various combinations of recurring drought, wetness, cold, steep ground, or infertile soil.

Meeting these problems

To meet these challenges and to move to sustainable (i.e., productive and environmentally sound) agricultural systems, the centers recognized in the mid-1980s that they would have to make major changes in their research programs. How well have they met the need to develop sustainable agricultural systems?

The short answer is that they are all making important progress, some more than others. Following the lead taken by TAC and the TAC's own Sustainability Committee, all the centers have begun to revise their research gradually. The extent to which these changes are marked by creativity and daring depends on the quality of the leadership of each center and the ability of its scientists to adapt to the changing perceptions about agricultural research. All this represents a big step forward. Prior to making the changes that I have described, most of the centers concentrated on increasing the productivity of the food crops that they were mandated to cover. Relatively little attention was being paid to the protection of natural resources.

Centers working on the problems of a whole region, such as the International Center on Tropical Agriculture (CIAT) in Colombia, the International Center of Agricultural Research in the Dry Areas (ICARDA) in Syria, and the International Institute of Tropical Agriculture (IITA) in Nigeria, appear to be experiencing less difficulty in making the necessary changes in their research strategies than the centers working on specific crops. They, too, will need to be ready to make mid-term corrections.

As yet, none of them has made fully systematic efforts to analyze the sustainability of the agricultural systems in which they are involved, taking into consideration not just economic and environmental trends, but also key institutional, political, and cultural factors. This is a huge and complex task for the agricultural support services, banks, and funding institutions to undertake in concert with farmers' associations.

The centers cannot do all this alone. For one thing, they do not have the necessary funds. Nor do they yet have the political backing to generate them. But even more important, they should not try: to be effective, the greatest part of such a complex and politically sensitive effort must be carried forward by national governments and national institutions in each country. As for the international centers, they will need partners other than the national centers, which are dedicated to bringing about fundamental changes in farming methods and the way that governments support those efforts. These new partners will fill certain gaps in the centers' arsenal of skills and activities and fit a certain profile:

- They would carry out research that the centers cannot get to or should not undertake. Some of these new partners should be farm-level and nongovernmental organizations (NGOs) that could be technically strengthened to do research at the local level and—equally important—to help get the centers' own successful research to the farmers in their localities.
- They would include those who could help persuade governments to make and implement realistic, financially valid plans to solve national agricultural problems. Possible partners in this effort would be the World Bank, the regional banks, other development agencies, and policy-oriented study institutes, such as the US-based World Resources Institute. To date, however, the banks and development agencies have seldom focused on this type of strategic agricultural planning.
- They would need to be able to help farmers—especially women farmers—adapt the centers' research for use in different ecological and cultural situations. National and regional farmers' groups, international NGOs, and even socially oriented private companies could become new allies for the centers.
- They should include groups outside the usual scientific circles within which the centers operate, while sharing the centers' vision, so that they could help the centers compete for political and financial resources in a resource-scarce world.

Needed changes

What changes deserve the greatest attention of the centers and their partners?

They should give the highest priority to integrating realistic and cost-effective methods of protecting natural resources at the farm level into more research projects. Protection and improvement of the soil must be at the heart of every project. A good model is the work that IITA of Nigeria has done in introducing soil conservation techniques into many methods of producing cassava, a crop on which 600 million people depend.

The centers must also do more to directly address the broader economic, cultural, and political issues that affect agricultural systems, as well as environmental concerns. This involves collaboration with national partners, for example, in dealing with crucial issues such as land tenure and infrastructure.

The centers must examine—individually and collectively—more closely the agricultural problems of the relatively few regions of high or potentially high productivity that are central to success in radically increasing food production (e.g., India and Pakistan's Punjab and the rice paddy systems in South Asia, South East Asia, and China). CIAT's new strategic plan to examine the overall sustainability of tropical mid-level hill areas in Latin America is a move in the right direction. But that organization should, very soon, go beyond this first step to determine where and how a substantial increase in tropical Latin American food production can be achieved.

The centers should also place a higher priority on developing "farmer-friendly," integrated pest management and integrated nutrient management techniques. The commodity-oriented centers must develop such techniques for whole agricultural systems where the crops on which their research concentrates are the principal—but not the only—crop involved. For example, the Center for Wheat and Maize Improvement, which is now doing important work on disease and insect resistant maize, should expand this to include integrated pest management research for other crops in maize-dominated systems.

The centers need to step up their efforts for protecting traditional crops and related wild varieties, whose genes may prove crucial to achieving sustainability at the high production level required. This effort is urgent and must continue to involve all the centers, not just the International Board for Plant Genetic Resources in Rome, which is specifically charged with coordinating this task.

These relatively new tasks will require the support and cooperation of persons and institutions well beyond the centers and their normal partners. The centers will need to involve themselves progressively as the key scientific players on a new kind of team designed to attack all the dimensions of agricultural sustainability and rural poverty. These efforts will certainly require more money, probably in increasingly large amounts, as this decade proceeds. Some of it will have to be released by scaling back old programs that are now of relatively lower priority. Greater emphasis must be placed on mobilizing additional financial—and political—support for the centers. Innovative techniques may need to be employed to raise additional funds.

Special role for the Bank

The question is often asked: Why not rely more on the national agricultural research centers rather than the international centers? The answer is important: Increasing the productivity of food plants requires—and will continue to require—a broader global approach, one that is difficult for national centers to achieve. The centers are the research organizations best suited for managing such a global approach.

I do, however, believe efficient national centers that are able to adapt world agricultural advances to local needs must in time be developed in all countries and regions. To a considerable extent, the international centers can contribute, and already are contributing, to the strengthening of the national centers through training and joint research. However, we must face facts. Too many national research institutions are far too weak to meet the heavy scientific requirement that their national conditions require. Building adequate scientific research capacity in these countries may take a decade or more. The World Bank, the regional banks, and some of the national aid donors are working hard to strengthen the research organizations in developing countries. The Special African Agricultural Research Fund (SPAAR) supported by the Bank and a number of countries, is an example of such an effort.

There is another special role for the World Bank. It is the only organization that has a strong enough resource base, and potentially enough political and intellectual leverage to take on the job of overall "managing director" of such an effort. It has a strong and vested interest in doing a better job in using broader agricultural planning to achieve its development objectives.

Admittedly, the Bank will have to make some major changes in its policies and operating style if it is to take on such a broad responsibility. But under its new leadership, the Bank looks like it is ready to embark on new paths. As a first step, the Bank could join with the centers and a growing number of willing countries in undertaking a series of country-specific discussions on agricultural sustainability and agriculture's place in national economies.

Despite the daunting task ahead, I am encouraged by the progress that the centers have already made. Indeed, the "greening" of international agricultural research is moving into what one could call "middle gear" and forging ahead. ■

Managing the CGIAR

How a global network of autonomous agricultural research centers operates

Selcuk Ozgediz
Management Adviser, CGIAR Secretariat

Scientists are still puzzled over how a bumblebee flies, since its huge body and tiny wings defy the laws of aerodynamics. Similarly, the CGIAR (Consultative Group on International Agricultural Research) appears to fly in the face of many traditional principles of management. This congeries of global research centers is still going strong 20 years after its founding, despite its rather loose and distant system of central management and coordination.

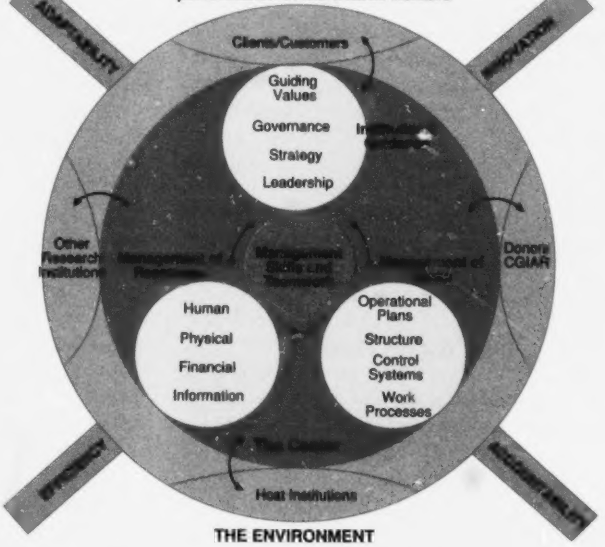
Consider the nature of the CGIAR:

- It does not really exist in a formal sense. It has no constitution, by-laws, or written rules of procedure. Its decisions are made by consensus, following informal consultations among members (thus the name "Consultative Group").
- It has no direct authority over the international centers it supports. Each center is an autonomous legal entity. Thus, the CGIAR has no direct means of ensuring that its decisions are carried out by the centers it supports, though individual donors can reinforce the CGIAR's decision by adjusting their funding.
- Most of the research carried out by the centers is long term. Yet, their funding is guaranteed by donors for only a year at a time and it is often tied aid—about 40 percent is in the form of special project finance or has some other conditions attached by donors.
- Each donor decides how individual centers are to be financed each year. There is no burden sharing, overhead, or contributions to a central fund. Each center competes every year against other institutions for funding from each donor.

Yet, the CGIAR is still functioning after 20 years. Why? It is a flexible and informal institution, and is much less bureaucratic than most international organizations. Its procedures can be changed quickly when they prove to be inappropriate. Although the CGIAR has no direct authority over the centers it supports, it has considerable influence over them, derived from their voluntary acceptance of decisions made by the Consultative Group. The boards of individual centers act as if they were formally accountable to the CGIAR. The CGIAR guides the centers' boards, and its centralized oversight mechanisms (such as periodic assessment of each center's programs and management by an international panel of experts) balance the autonomy enjoyed by the centers.

The short-term funding does produce uncertainty for the centers, thereby limiting their flexibility, but it fits well with the annual budgets of donor agencies. Most donors try to mimic long-term funding by providing assistance to a center several years in a row.

A conceptual framework for examining the organizational performance of the CGIAR Centers



In addition, the World Bank serves as a "donor of last resort," filling in some of the funding gaps in center programs. While this introduces some distortion to the preferences of other donors, it strengthens the coherence of the CGIAR-wide research effort. Most donors like the fact that they make their own decisions about funding of individual centers, instead of having their funds pooled and allocated to the centers by a central authority. The informal consultative group mechanism provides nonbinding guidance to every donor about programs that deserve the donor's support. For the centers, increased competition for donor financing means a push for more efficient research and related programs and better demonstration of their effectiveness.

Thus, the CGIAR has unique structural features that, on the face of it, could produce inefficiencies but, instead, have helped make it a successful international venture. How has this been achieved?

Framework for management

The factors contributing to the centers' and the system's effectiveness can be studied with the aid of a conceptual framework (see chart) for analyzing organizational performance. This framework has been used as a template and checklist for conducting external management reviews of individual CGIAR centers. The model has five interrelated components, each focusing on an aspect of management: institutional guidance, management of resources, management of tasks, institutional environment, and management skills and teamwork. In addition, it includes four cross-cutting organizational attributes (adaptability, accountability, efficiency, and innovation) as derivatives of the five components. Taken together, these components and attributes help shape the overall performance of the organization.

Application of the preceding framework to the way in which the CGIAR functions yields the governance and management profile described below.

System guidance. The CGIAR reflects the values of the donors, who come together primarily because they share similar values about development and development assistance and the role of research in the development process. Changing values and priorities on development questions and their implications on the work of the centers are frequently discussed by the CGIAR. The recent changes in the CGIAR's mandate to place greater priority on questions of environmental sustainability and to incorporate research in forestry, agroforestry, and fisheries reflect the adaptation of the system to changing development priorities.

The CGIAR has no separate governing body. It has been traditionally chaired by a senior official of the World Bank. The three cosponsoring organizations—the World Bank, the Food and Agriculture Organization of the United Nations (FAO), and the United Nations Development Programme (UNDP)—jointly provide leadership for the network. The CGIAR's Technical Advisory Committee (TAC) guides its technical work, while the CGIAR Secretariat handles financial and administrative matters.

Long-term plans are reflected in a priority and strategy statement that is modified about every five years after wide consultation with the CGIAR's clients, partners, and donors. Overall, the CGIAR provides broad guidance to centers, leaving it to them to translate its advice into appropriate action according to their specific mission.

Management of resources. Since donors directly finance the work of research centers, the CGIAR has few resources at its disposal. These comprise primarily the staff in the Secretariat at the World Bank and the Technical Advisory Committee and its Secretariat at FAO. The Secretariat reports to the senior World Bank official who is the Chairman of CGIAR. Its expenses are covered by the Bank. The Bank and the other two cosponsors share the expenses of TAC and its Secretariat.

Management of tasks. The CGIAR relies on TAC and the CGIAR Secretariat for carrying out system-wide activities on its behalf. The CGIAR priorities and strategies are translated into medium-term and annual operational plans and proposals for the system by these units, based on submissions from all centers. In addition, these units manage the CGIAR's external review process. This involves evaluation of each center's programs and management at five-year intervals by an international panel of experts. In the intervening years, TAC and the CGIAR Secretariat monitor the centers' program and management performance, respectively. In addition, from time to time, the CGIAR commissions reviews of the whole system. The last such review was conducted in 1981. The external review process helps provide the information necessary for central oversight. Committees and task forces are established by the CGIAR, as needed, to study specific subjects.

Governance of the centers

Most of the centers operate in very difficult sociopolitical environments. The high quality physical and administrative infrastructures that are often taken for granted in developed countries do not exist in most of the developing countries in which the centers operate. Despite these constraints, each center is expected to create and nurture an institutional environment that is highly conducive to innovation and creativity.

Each operates in a unique institutional milieu, faces different constraints, and has a different mandate, organizational culture, staff mix, funding pattern, organizational structure, and so on. This means that the formula for success in one center does not automatically apply to another. Still, some broad generalizations can be made about the management characteristics of the centers.

Center guidance. First, strong leaders have helped improve the overall management of individual centers in recent years. Second, the boards of trustees have begun to play a greater role in policymaking to supplement their traditional policy oversight role. Third, centers are increasingly preparing their strategic plans in close consultation with their clients and collaborators. This approach to strategic planning is likely to enhance the responsiveness of centers' research agendas to the needs of their principal clients: national agricultural research systems in developing countries.

Management of resources. External reviews of the centers indicate that the centers have many first-rate scientists and administrators and good support staff. The centers encourage staff turnover, so that they can remain fully aware of recent developments in the relevant scientific disciplines as a result of induction of new and often younger international staff.

The centers have made considerable progress in improving their information management systems and procedures in recent years, by using new information technology. Progress in the management of human, financial, and physical resources has also been notable, but uneven across the centers.

Management of tasks. The centers manage their work through projects. They have a long-standing tradition of conducting annual internal reviews of their programs. Recently, they also began to conduct internal management reviews, commission peer reviews, and assess the impact of their activities. This recent emphasis on impact assessment, coupled with the new approach to strategic planning, is likely to enhance the relevance of the centers' work. In addition, greater attention to increasing the centers' innovation potential—by measures such as encouraging risk taking, allowing free time for scientists to foster creative thinking, insulating innovative activities from routine ones, and reducing administrative controls on staff teams working on innovative projects—can make a difference in their overall effectiveness.

Management skills and teamwork. The business of the centers requires strong interdisciplinary teamwork. The top 100 managers in the centers, including the directors, have completed an intensive management development program patterned after the World Bank's program for its own managers.

Stakeholder relationships. The centers pay special attention to their relationships with host countries, donors, sister research institutions, and the CGIAR. Their relationships with client national agricultural research institutions in developing countries have improved over the years, although tensions exist in some cases (relating, for instance, to competition for donor funds and to the need for better coordination of centers' advice to national institutions).

Overview

The CGIAR and the centers it supports are now at an important crossroads. The system has recently been expanded from 13 to 17 centers in response to changes in donor priorities. This comes at a time when there is considerable financial uncertainty regarding funding for international agricultural research. Thus, the system faces a possibly serious mismatch between demand and supply of resources for CGIAR programs. In addition, the CGIAR is exploring alternative ways of restructuring its programs so as to be able to better serve its clients and integrate its various activities.

The CGIAR and its centers have been relatively successful in meeting such challenges in the past. But the current challenges appear much larger in magnitude than ever faced by the system. Will the CGIAR's flexible and informal governance mechanisms enable the system to generate an appropriate response? Or, is the CGIAR's "bumblebee" structure actually so clumsy that it can only lead to insignificant, marginal change?

The fact that it is carrying out a self-examination is a healthy sign for the CGIAR. This parallels the recently strengthened practice in the centers to conduct probing self-studies of their institutional strengths and weaknesses. When coupled with the strong signals being emitted by the donors regarding goals and directions for the system, these introspective practices are likely to generate the momentum for internal change that is necessary for the CGIAR system to continue to respond effectively and dynamically to changing circumstances. ■

Biotechnology and the Developing World

Finding ways to bridge the agricultural technology gap

Kerri Wright Platais and Michael P. Collinson

As countries all over the world confront the need to dramatically boost agricultural output, biotechnology—which comprises techniques for using plants, animals, and microbes to produce useful substances or improve existing species—stands out as a promising tool. These techniques, ranging from basic tissue culture to advanced genetic and molecular manipulation of biological material, hold out the possibility of relieving the present biological constraints on agricultural production. This can be done through improving the tolerance of crops and animals to particular physical stresses (e.g., salinity and drought), pests, and pathogens, and through increasing nutrient efficiency.

Exactly how much modern biotechnology can or cannot do—especially for the developing countries—is still an unanswered question. Indeed, during the last few years, there has been an intense debate among supporters and critics alike, with some touting recent developments as the next "Green Revolution"—that is, a "gene revolution"—while others have warned against a possible erosion of genetic resources. Other prickly issues include intellectual property rights (the patenting and legal ownership of discoveries involving living organisms) and biosafety (the testing and release of genetically altered plant varieties in farmers' fields).

Up to this point, most biotechnology research has taken place in the industrialized countries, concentrating on applications of interest to the developed world. But in recent years, developing countries have become more active in the field, sensing that this type of research holds potential benefits for them, too. This notion was in fact validated by a major study in 1988–90 by the World Bank, the International Service for National Agricultural Research, and the Australian government. It concluded that there were many potential benefits from integrating modern biotechnology with conventional agricultural research, and from focusing significant public sector investments on the "orphan commodities"—crops traditionally of less interest to the industrialized countries but of great importance to the vast numbers of resource-poor producers and consumers in the developing world.

So what is the problem? Unlike earlier agricultural advances, such as the Green Revolution, most biotech research and development tends to be concentrated in the private sector. This means that secrecy and stockholders play vital roles in the development of new products, which then in turn are often protected by patents. In addition, the stakes of biotech research are quite high. Firms typically must make large initial outlays, only to wait some 10 to 15 years before the products are even developed and released. As a result, developing countries increasingly fear that they will not have access to the new techniques and products. They also worry that they will lack both sufficiently trained personnel and the necessary infrastructure to even implement the new research strategies. This article takes a look at this dilemma, focusing on how one public sector group—the Consultative Group on International Agricultural Research (CGIAR)—can help.

Who is investing

For industrial countries, modern biotechnology is no longer new. It was first used commercially in the United States in the mid-1970s, and by 1990, estimated total research and development in biotechnology worldwide reached approximately $11 billion dollars, with about two thirds accounted for by the private sector. Although the field was originally dominated by medical applications, animal and crop production have been taking on increased importance. Current research in animals focuses on vaccine development and improving the productivity of farm animals—for example, treating cows with supplemental bovine somatotropin (BST), a natural protein hormone manufactured through recombinant DNA technology (the basic thread of life in all living systems) to increase milk production. Furthermore, it has become a relatively common practice to use genetic engineering to identify and transfer single genes for desired traits into certain plants, thereby offering biotechnological alternatives to chemicals for the control of insects, weeds, and diseases.

In the developing world, however, the state of biotechnology varies greatly, with most countries falling into one of two groups: those with the potential to adapt imported biotechnologies to local conditions, or those with very little or no applied research capacity to exploit imported biotechnologies. Only a few—notably Brazil, China, India, and Thailand—currently enjoy a capacity to develop and export biotechnologies, largely because of concerted efforts among their policymakers and scientists to develop national biotechnology policies. Yet even these countries face some rather serious barriers:

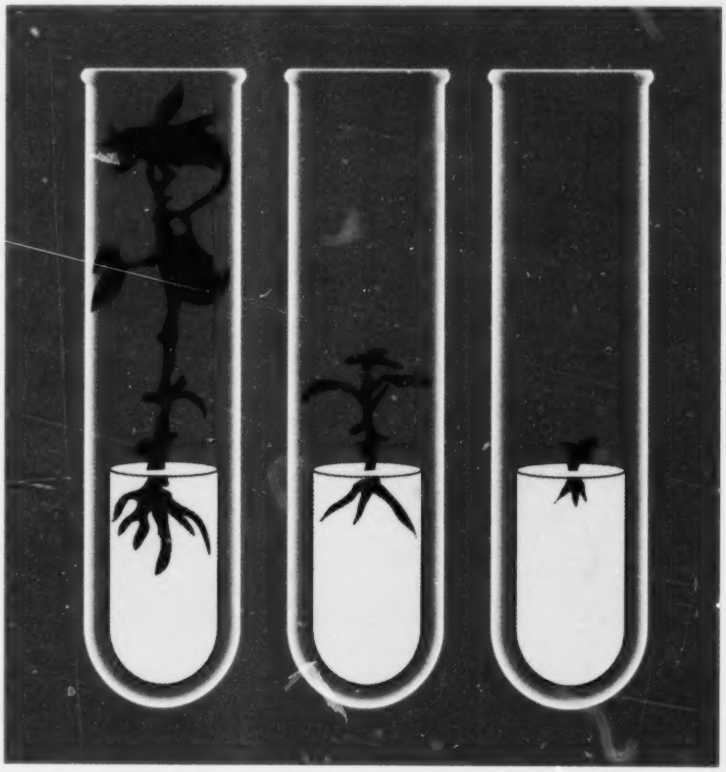
- A shortage of investment capital inhibits both product development and the capacity to supply the market. In Thailand, for example, the Government continues to import a special enzyme used in diagnostic testing (for pregnancy and biochemical analysis), despite the fact that one of the key ingredients, peroxidase, can be obtained from the horseradish plant, which is abundant locally. The problem, quite simply, is a lack of venture capital.
- There is a lack of trained scientists who can combine biotechnology with conventional breeding practices.

For further information on this topic, please refer to "Agricultural Biotechnology: Opportunities for International Development," edited by Gabrielle J. Persley, and World Bank Technical Paper Number 133, "Agricultural Biotechnology: The Next 'Green Revolution'?"

- In the eyes of some, progress in agricultural biotechnology in the industrial countries may erode Third World income sources. Specific concerns revolve around the displacement of traditional export crops and hard currency earnings. Although not an outcome of modern biotechnology, the development of sugar substitutes is often used as an example of technological progress leading to loss of export markets for the developing world. In other cases, such as the production of vanilla in tissue culture, developing country incomes are threatened, as synthetic substitutes displace traditional means of production.

Public versus private

Despite these barriers, it is clear that biotechnology research holds enormous promise for the developing world. But to what extent will these countries be able to take advantage of the research benefits? The answer most probably lies in the ability of these countries to become part of the public-private nexus that sprang up in the United States and Europe in the 1980s—a dramatic change from the international public research effort that brought the world the high-yielding rice and wheat varieties of the 1960s.



The new emphasis is on public and private universities collaborating with private companies in the area of product development— something that has existed in other areas of agricultural research for quite some time. This has been facilitated by changes in US patent laws that have made it possible for companies to make a profit on their investments in the public arena. As a result, a new division of labor has emerged. More and more, public institutions and universities are focusing on the basic aspects of research, leaving product development and dissemination in the hands of private firms. One promising prototype is a recent agreement worked out between scientists at Washington University in Missouri and a large US agrochemical company, Monsanto. The private company, which provided financial support for the virus resistance research, now has a patent on the new gene that was developed, while the primary scientist has been granted licensing rights for the release of the gene into cassava and rice in developing countries.

Besides the universities, international lending agencies, including the World Bank, have also become part of this cooperative effort. For some, the involvement takes the form of international initiatives, such as one launched by the UN Food and Agriculture Organization (FAO) to retain the rights of farmers in the development of new agricultural varieties. For others, such as the Bank, new responsibilities take the form of increased investment in human capital and infrastructure development to advance science and technology programs. It is difficult to estimate the Bank's total financial outlay for biotechnology, as these activities fall within lending programs for agriculture, education, and science and technology. Even so, many projects include a biotechnology component, and since 1982, these have amounted to about $97 million. In fiscal years 1990 and 1991, three projects were funded in Argentina, Bolivia, and Senegal, with biotechnology components totaling $3.7 million, about 5 percent of the total lending for these projects.

As new partnerships emerge, care must be taken to continue the development of biotechnologies for the less commercially attractive but vitally important food crops unique to developing countries. At this stage, it is difficult to know how the privatization of certain products or specific biological changes in plants and animals will affect food production in the developing world. But ethics and equity demand that the gene revolution enhance— rather than erode—the opportunities for resource-poor producers.

How CGIAR can help

The CGIAR believes it can help in two fundamental ways: by providing a bridge for the flow of needed information and germplasm (seed and plant material) between developed and developing countries, and by ensuring that the agricultural needs of the developing countries are not lost (given that there would be little money to be made by private firms in the improvement of orphan commodities). Its overall strategy is to draw on tested biotechnology techniques from advanced research laboratories, applying them to existing research activities, rather than undertaking innovative biotechnology research themselves. The integration of biotechnology with conventional research is crucial to the CGIAR role in the sustainable improvement of agricultural productivity in developing countries.

At present, the scale of CGIAR biotechnology research is modest—especially compared with that of the private sector—and no doubt will remain so. In 1990, for example, CGIAR plant and animal biotechnology research totaled $14.5 million. This was less than 5 percent of the total CGIAR budget and only a fraction of the $55 million spent on agricultural biotechnology by Monsanto alone. Half of the CGIAR outlay on biotechnology went to plant research, distributed across nine crop improvement centers working on 15 crops. The other half went to animal research, primarily at the International Laboratory for Research on Animal Diseases, in Nairobi. This center focuses exclusively on state-of-the-art molecular biology for the elimination of two major livestock diseases: tick-transmitted East Coast Fever and tse-tse fly-transmitted African sleeping sickness (trypanosomiasis).

Networks. Faced with these cost limitations, CGIAR realizes that one of the best ways it can help disseminate information is through building on its established network system—essentially associations of independent individuals or institutions that share a common goal—which it uses to pass on useful research techniques to national systems.

The first biotechnology network was established in 1985 with major assistance from the Rockefeller Foundation. It links advanced laboratories in Japan, Europe, the United States and Australia with two CGIAR centers: the International Rice Research Institute in the Philippines and the Centro Internacional de Agricultura Tropical (CIAT) in Colombia. This network uses advanced biotechnology techniques in the development of molecular maps to help breeders determine whether individual rice plants contain useful genes. Many such genes have already been cloned from rice, including the gene "oryzacystatin," an inhibitor of the digestive enzymes of insect pests.

Another advanced research network is the Cassava Biotechnology Network involving CIAT, the International Institute for Tropical Agriculture, and scientists in Latin America, Africa, Europe, and the United States. This network, supported by the Government of the Netherlands, focuses on unlocking the problems associated with cassava biochemistry via molecular research, Biotechnology will be supplemented by farming systems studies to assist in removing the effects of cyanide in cassava for increased farmer acceptance. Research on cassava and other crops included in the category of orphan commodities is especially important, as many of the world's small farmers depend heavily on these crops for food and income.

Training and institution building. A second way of diffusing research technology is through training and institution building. Between 1985 and 1989, CGIAR-supported centers (there are 17) conducted training courses, mainly lasting two to four weeks, to an estimated 25,000 developing country scientists in all areas of crop and livestock improvement. In addition, research fellowships in biotechnology have been offered at several centers.

On the institutional side, the centers are increasingly being asked by national agencies to help set up creative programs that often have a biotechnology component. In 1986, for example, the Andean Development Bank (CAF—Corporacion Andina de Fomento) asked the centers in the Latin American region to assist in some of the activities of its recently created biotech program. In response, the Centro Internacional de la Papa (CIP) began to work with the CAF on projects in five Andean countries (Peru, Bolivia, Ecuador, Colombia and Venezuela), which range from using tissue culture for disease-free material to *in vitro* potato seed production to facilitate the transport of planting materials to remote areas.

A look ahead

The CGIAR is well-positioned to help disseminate appropriate biotechnologies to developing country agricultural research. As biotechnology progresses, greater knowledge and more precise tools for agricultural research will help reduce uncertainty about the future potential of biotech products for developing countries. At the same time, however, there will be a greater need for global monitoring of research advancements. It is increasingly clear that isolated research will not bring the changes needed for the next century, meaning that international collaboration will be essential. In the process, countries will have to come to grips with two critical issues that are taking on increased importance with the advances made in biotechnology.

Kerri Wright Platais
a US citizen, is currently a research analyst with the CGIAR. Formerly, she coordinated an international plant biotechnology network for USAID at Colorado State University, where she received her Masters in Agronomy.

Michael P. Collinson
a UK national, is a Science Advisor in the CGIAR Secretariat. He holds a PhD from Reading University in Agricultural Economics and has worked extensively in farming systems research in Africa.

Biosafety. As plants produced from genetic engineering techniques are tested and released, the ability to ensure environmental safety and public health is shaping up to be a critical issue. Already, private sector companies have tried dodging stringent regulations in developed countries by field testing in developing countries. This means that developing countries—where most of these crops originated—must quickly develop strict biosafety regulations. The international research centers have established special committees within their institutions to prepare for the testing of genetically improved material. Following the international guidelines set by the Organization for Economic Co-operation and Development, they work closely with host countries in determining proper risk analysis for the testing of genetically engineered plant material.

Intellectual property management. The need to preserve future biodiversity has been, and continues to be, a top priority for the CGIAR. Over the years, several of the centers have collected germplasm from countries worldwide for their mandated crops, often using the material to re-establish individual country collections (e.g., because of political unrest). In fact, the sole purpose of one center—the International Board for Plant Genetic Resources (IBPGR) in Rome—is to promote germplasm conservation.

The CGIAR has always operated an "open door" policy—meaning all clients, whether public or private, in the developed or developing countries, can enjoy access to the germplasm. But the involvement of the private sector in biotech research is raising serious questions about both the access of developing countries to new biotechnologies and the extent to which research will benefit resource-poor farmers. Developing countries seem to be faced with two possible scenarios, neither of which is entirely acceptable. They can either protect intellectual property rights, thereby obtaining access to the latest crop technologies, which may lead to taxing farmers with seed cost. Or they can choose to save foreign exchange and protect farmers' income, but risk being left behind.

As the developing countries begin negotiating these touchy issues with the private sector, they hold one valuable asset—the germplasm originating from their land and shared with CGIAR. Indeed, these collections will increase in value as biotechnology expands and the genes contained in the seed material gain importance for the global research community.

To date, the centers involved with crop commodities have chosen not to patent their discoveries. But they will eventually have to consider negotiating for the use of proprietary technologies. This might mean purchasing the rights to use a certain technique or product of biotechnology, such as a virus resistant gene, to make it available for use by its developing country partners. Assuming the use of these products does not interfere with traditional markets—based in Europe or the United States—industrial country companies could, by this method, share their goods with the developing world. ■

(Continued from page 24)

Heterodox for whom?

Given the advantages and disadvantages of heterodox programs, their use can only be recommended in a limited number of cases. On the not recommended list we have three situations. The first involves countries that have not had chronic problems with inflation but suddenly experience an inflationary outburst. In this instance, income policies are not a good idea, because inflation is perceived (correctly) as a temporary phenomenon. Examples of this are Costa Rica and the Philippines in the early 1980s, as both countries traditionally had low inflation, but suffered a short inflationary spiral following the devaluations undertaken in response to the debt crisis. The speed with which inflation was brought down using orthodox measures illustrates that this was indeed the right approach.

In the second situation—that of hyperinflation—the orthodox approach is also preferable for several reasons: (1) inflation is less rigid; (2) the cause of inflation is clear—a large budget deficit financed by money creation; and (3) hyperinflation is inherently unsustainable, meaning that the public will demand price stability.

Third, the orthodox approach is advisable in low and moderate inflation economies. In this situation, controls are not likely to generate a large reduction in inflation, because contracts are typically long and staggered, as opposed to high inflation economies, where they are short and highly synchronized. A freeze would leave great disparities in relative wages and prices, penalizing those with the oldest contracts. This problem is difficult to handle in practice, requiring a great deal of information.

Thus, the only situation in which the heterodox approach is potentially useful appears to be when countries are plagued with chronic high inflation, as was the case with those that opted for this policy in the 1980s. But there is one important caveat: Entering a heterodox program that is later abandoned holds potential dangers. Indeed, the costs of this approach could be larger than simply postponing stabilization. For Brazil and Argentina, the repeated use of controls was a major destabilizing force, responsible for the unprecedented hyperinflations of the late 1980s. ■

Miguel A. Kiguel
Argentine, is a Senior Economist in the Bank's Macroeconomic Adjustment and Growth Division. He holds a PhD from Columbia and previously taught at the University of Maryland.

Nissan Liviatan
Israeli, is a Consultant to the Bank's Macroeconomic Adjustment and Growth Division and an Advisor to the Bank of Israel. He holds a PhD in economics from Hebrew University of Jerusalem, where he also teaches.

New from the International Monetary Fund

How To Measure the Fiscal Deficit: Analytical and Methodological Issues

edited by Mario Blejer and Adrienne Cheasty

Fiscal policy seeks to equilibrate the public sector's demand for investment and a sustainable balance of payments. Correct *measurement* of the public sector's net use of resources is therefore an important prerequisite for managing the macroeconomy. This volume is organized around four issues: the adequacy of summary measures of the fiscal deficit; conventional and adjusted deficits; coverage (size) of the public sector; and the public sector's intertemporal constraint.

Available in English. 350 pp.
ISBN 1-55775-192-7. (paper) 1992.
US$22.50.

To order, please write or call:

International Monetary Fund

Publication Services
Box FD-201
700 19th Street, N.W.
Washington, D.C. 20431 U.S.A.

Telephone (202) 623-7430
Telefax: (202) 623-7201
Cable Address: INTERFUND

American Express, MasterCard and VISA credit cards accepted.

Voluntary Market Financing

Some Latin American countries are returning to global capital markets. An early assessment

Mohamed A. El-Erian

After a prolonged and almost total reliance on debt reschedulings, some Latin American countries—notably Chile, Mexico, and Venezuela—have recently begun to attract voluntary financing from international capital markets. This provides them with a wider and more flexible range of financing instruments to fund productive activities, given the narrow, albeit expanding, domestic capital markets. It also signals to agents in other international and domestic markets that the risks associated with investing in these countries have been sharply reduced—a crucial step in encouraging other private inflows, such as foreign direct investment and the repatriation of flight capital.

Although the process of market re-entry is still at an early stage—so far, only three countries have made significant inroads, and the numbers involved are quite small compared with the overall size of these markets—it has nevertheless attracted considerable attention. This article draws upon the recent experience of these countries to provide an overview of the difficult task of regaining access to voluntary capital market financing.

Re-entering the market

International capital markets were a major source of external financing for developing countries in the 1970s and early 1980s. Medium and long-term international bank credit commitments totaled some $225 billion in 1976–82. In 1982 alone, such commitments amounted to $42 billion, with Latin American borrowers accounting for $23 billion. On the bond side, developing country issues reached $27 billion in 1976–82, with $4 billion of that in 1982—half of which was accounted for by Latin American borrowers.

But with the outbreak of the debt crisis in late 1982, when Mexico, followed by several other countries, announced its inability to meet fully scheduled debt servicing, the picture changed sharply. All sources of voluntary private financing to the region, with the exception of short-term trade facilities, virtually dried up. As a result, the total amount of medium- and long-term bank and bond financing over 1983–88 dropped to an estimated $7 billion—less than a third of the amount committed in the first three quarters of 1982 alone. Almost overnight, "concerted" financing became the major source of private external credit for the region.

Since mid-1989, however, a few countries in Latin America have managed to regain access to voluntary sources of private financing. The process so far has been dominated by borrowers in Mexico and, to a lesser extent, Chile and Venezuela; some limited operations have also been undertaken by Argentinian and Brazilian entities. The return to voluntary financing has taken the form of international bond issues on US and European markets, attracting primarily institutional investor funding and residents' capital held abroad. Total bond issuance is estimated at some $3 billion in the 18-month period to December 1990. Market data point to stepped up borrowing in the first half of 1991, with over $2 billion being mobilized by Mexican entities alone.

At the same time, there has been a modest revival in voluntary bank lending to these countries, primarily in the form of trade and project financing and short-term interbank facilities. Moreover, several Latin American corporations have recently completed equity offerings in industrial country markets, thereby complementing the impact of a growing number of country funds. These were the first significant Latin American foreign stock offerings since the 1960s, reflecting in part a stepped up effort by some governments to privatize. Along that line, the $2 billion Mexican telephone company (TELMEX) issue is reported to be the sixth largest placement of shares in the world (nominal values) to date and the biggest ever for any Latin American country (see "Accessing the International Capital Markets" by Kumiko Yoshinari in *Finance & Development*, September 1991).

However, the large syndicated bank credits, which dominated private flows to developing countries in the 1970s and early 1980s have not resurfaced. Besides concerns about the higher rescheduling risk associated with such lending, this reflects the more difficult financial circumstances of banks in several financial centers, along with tighter regulatory requirements in some cases.

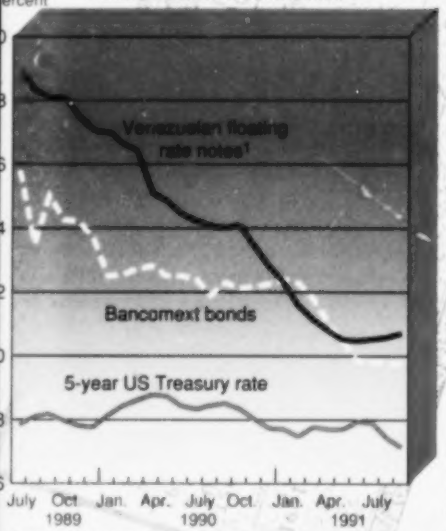
Terms on voluntary financing. The renewed availability of voluntary foreign financing has been accompanied by an improvement in market terms, as evidenced in the sharp drop in yields on Mexican and Venezuelan bonds (see chart). The first unsecured voluntary bond issue by a Mexican public enterprise since 1982 (Bancomext in June 1989) carried an initial yield of some 17 percent, implying a spread (or "risk premium") of about 820 basis points over US government bonds. But by the third quarter of 1990, the weighted average spread for new Mexican bond issues had declined to an estimated 320 basis points. Although it increased somewhat in the final quarter—reflecting the general market tightening associated with the Middle East crisis—the average spread fell again in the first half of 1991. For example, the April 1991 Bancomext issue carried an initial yield of under 10 percent (implying a spread of only 200 basis points), and a 300 million deutsche mark Mexican central government issue in February (used as a "benchmark" for tracking other bonds in that market) was marketed at an estimated spread of under 200 basis points over comparable German government bonds.

But a word of caution is in order, as these measures of creditworthiness are affected by

---

The article is based on a paper presented at the America Economia seminar on "Latin America: Raising Capital on the International Voluntary Markets," held in Chile on June 18–19, 1991. The paper was subsequently published in the IMF Working Paper series (WP/91/74).
A more detailed analysis of the Mexican experience is contained in "Mexico's External Debt and the Return to Voluntary Capital Market Financing," IMF Working Paper WP/91/83. Both papers are available from the author.

for Latin America



Reform pays off

Yields on selected bond issues

Source: International Financing Review.

[1] Weighted average reported yield on floating rate notes issued in 1988-89 and maturing in 1993, 1994, 1995, and (from September 1990) 1998.

the changing composition of borrowers and structures of bonds (particularly, the degree of credit enhancements, such as payments guarantees). To help correct for this, one can track the performance of an individual borrower's debt instrument, albeit at the cost of limiting the coverage of the analysis. For example, the yield on the Mexican oil company (PEMEX) issue fell from 14 percent in mid-1989 to under 10 ¹/₂ percent by end-May 1991, the yield on the Bancomext June 1989 issue dropped from 17 percent to around 10 percent, and the yield on the 1989 Venezuelan (11 ¹/₈ percent benchmark) bond decreased from 18.5 percent to 10.4 percent. These movements reflected a significant fall in risk premia, which was compounded by lower international interest rates.

Other private external inflows. In recent years, there has also been a resurgence in nondebt-creating private capital inflows—such as foreign direct investment and capital repatriation—providing additional resources to help support comprehensive economic adjustment and reform policies. In Mexico, for example, foreign direct investment in 1989–90 was twice the level reached in 1987–88, with the pipeline of new investments yet to be disbursed growing to over $5 billion. Similar developments were recorded in Chile and, to a lesser extent, Venezuela.

The magnitude of capital repatriation, however, is more difficult to quantify with any precision, although the majority of indicators point to a significant turnaround in the last two years. These include a recent study by Chartered West LB that estimates net total inflows of $14.1 billion for Chile, Mexico, and Venezuela in 1989–90, compared with an estimated outflow of $4.5 billion for 1987–88—a difference of almost $20 billion.

Why re-entry was possible

Implementing sound economic policies. Just as inappropriate economic policies, together with adverse exogenous developments, contributed greatly to the emergence of debt problems, the sustained implementation of sound macroeconomic and structural reform programs has done the most to restore access to voluntary financing. While these programs, which have been supported by the IMF and the World Bank, have varied from country to country, several common elements can be identified:

- reducing domestic financial imbalances through improved budgetary performance and prudent monetary policies. This involves reinforcing the fiscal revenue effort, containing expenditures, and allowing domestic interest rates to reflect fully the cost of compensating savers for the considerable risk premia in lending domestically;
- enhancing the supply response of the economy through appropriate pricing policies, such as promoting the tradable sector by maintaining a competitive exchange rate; and
- improving economic efficiency through fundamental structural reforms. This includes liberalizing the trade regime, reforming the tax system, divesting public sector enterprises, liberalizing the financial sector, improving legal and other procedures governing foreign investment, and deregulating domestic activities.

Comprehensive restructuring of existing indebtedness. The experience of Latin American countries in the 1980s suggests that in some cases, the positive effects from the implementation of sound policies may not be fully realized due to high risk aversion on the part of the private sector on account of existing indebtedness. This aversion, which undercuts incentives to undertake productive investment activities, reflects concerns about expected financial returns, given the uncertainty about the country's ability to meet contractual debt obligations without further increases in effective taxation. Such adverse effects can become more pronounced if, as has been increasingly the case, the process of securing concerted new money loans from banks is subject to protracted negotiations that raise the risk of creditor/debtor confrontations.

Against this background, Chile, Mexico, and Venezuela managed to reduce the burden of their bank debt in recent years through market-based debt and debt-service reduction operations. Chile cut back its stock of restructurable bank obligations by over 70 percent in four years (to some $4 billion) through a series of voluntary market-based conversions, supplemented by direct cash buybacks. Mexico and Venezuela adopted a different approach within the framework of the "Brady Initiative" that involved an agreement with bank creditors on a comprehensive restructuring package, incorporating debt and debt-service reduction options. For Mexico, the 1990 package resulted in an effective gross bank debt reduction of around $15 billion, or 31 percent of eligible debt (see "Mexico's Commercial Bank Financing Package" by the author in *Finance*

& Development, September 1990).

Venezuela's 1990 bank agreement involved an effective gross bank debt reduction of some $5 billion. This was achieved through a menu of five options, including a buyback of debt at a discount of 55 percent and conversions of claims into partially collateralized discount bonds (at 70 percent of face value), reduced interest rate (6 ¾ percent, fixed) par bonds, and bonds with below-market, but gradually increasing, interest rates in the first five years.

Reducing market transaction costs. There has also been a reduction in the transaction costs for accessing international capital markets, largely because of regulatory changes in industrial country capital markets and more widespread market information on borrowers' creditworthiness.

Important regulatory changes have occurred in the US market; other countries, such as Japan, have also taken steps to facilitate developing country access to their capital markets. Before April 1990, the average costs of meeting US bond registration and disclosure requirements for first time developing country issuers were estimated at roughly $500,000–700,000, prompting many issuers to go outside the public market and try the route of private placements instead. But these placements carried costs of their own, including those associated with buyers being required to hold the issues for at least two years after the initial offering.

With the passage of Regulation S and Rule 144A in April 1990, however, it has become much easier for developing countries to tap US investors. Regulation S has facilitated the sale of Euro-issues to US citizens by clarifying what exactly constitutes the sale of a Euro-issue in the United States—these issues involve relatively fewer transaction costs. Rule 144A has reduced the loss of liquidity associated with private placements by relaxing the two-year holding period, provided that the sale of the financial instrument is to "qualified institutional buyers." Such buyers are defined as entities managing and owning at least $100 million in securities and, in the case of banks, with a net worth of at least $25 million. There are about 5,000 qualified institutional buyers in the United States—mainly insurance companies, commercial banks, and money managers.

These changes have accompanied the greater use of the American depository receipts (ADR) program, under which developing countries may access equity markets without meeting the full costs of offerings and listings on these markets. Under this program, each American depository share traded in the United States represents a specified batch of the company's trading shares in the local market. This route has been used by a number of Latin American corporate re-entrants, including Chile's telephone company, and Mexico's TELMEX and Vitro (a private glass manufacturer).

Increased interest among international investors in bond issues by re-entering Latin American entities has led to, and been reinforced by, the provision of market-credible credit ratings, thereby reducing some of the costs investors face in compiling investment information. In December 1990, for example, Mexico received its first credit rating by Moody's Investors Service—the ceiling rating for Mexican debt (excluding the debt restructuring bonds) was set at Ba2, just below investment grade. In July 1991, Moody's upgraded the credit rating on outstanding Venezuelan bonds to Ba1 from Ba3.

Customizing financial instruments. In an environment of still significant—albeit declining—perceptions of credit and transfer risks, borrowers must pay particular attention to customizing their debt instruments to meet market requirements. This becomes particularly important when there is a general tightening of market conditions, as occurred temporarily during 1990.

In several of their bond issues, some Latin American reentrants have attempted to make the instruments more attractive by providing explicit credit enhancements. This has been done, most often, through collateralization on the basis of existing assets or an expected stream of receivables. But other options have also been used, including preferential treatment in the case of privatization or early redemption clauses.

In addition to the intrinsic value in relation to the face value of debt, the attractiveness to investors of the collateral, and thus the extent to which it improves market terms, depends on the collateral's location, and the costs involved in taking possession and disposing of it, should the need arise. Several borrowers have provided collateral in the form of assets and receivables located, or generated, outside the country, thereby enabling them to address investors' concern about both credit and transfer risks. TELMEX, for example, provided investors protection in the form of a claim on payments due from AT&T on account of international

Glossary

American depository receipts. US dollar-denominated equity-based instruments backed by a trust containing stocks of non-US companies. ADRs may be traded directly among US investors, with clearance and settlement handled by the custodian bank in the United States.

Cash buybacks. The repurchase for cash of debt, often at a discount.

Collateralized bond exchanges. These exchanges have tended to involve the conversion at a discount (either on the face value or contractual interest rates) of bank loans into longer-term bonds, the principal and/or part of the interest on which is guaranteed through the use of "risk-free" instruments (e.g., US Treasury zero coupon bonds for principal collateralization).

Concerted bank lending/new money loans. Proportional increases in commercial bank exposure, coordinated by advisory committees negotiating, on behalf of creditors.

Country funds. These funds allow investors in industrial countries to pool their resources and invest them in specific emerging capital markets.

Credit enhancements. Attributes of financial instruments that improve the underlying value of these instruments. They include collateralization (on the basis of existing assets or an expected stream of income), early redemption possibilities, and preferential treatment in the case of privatization.

Credit ratings. Ratings, issued by established market agencies, that seek to measure the degree of credit and transfer risks. For example, Moody's Investor Service assigns ratings of Aaa, Aa, A, and Baa for investment grade; Ba and B for non-investment grade; and Caa, Ca, C and D for default grade. In addition, numbers from 1 to 3 are often attached to differentiate borrowers within a given grade, with 1 being the highest. Similar classifications are used by other rating agencies, such as Standard & Poor's.

Credit risk. Risk associated with the possibility that the other party to a financial contract (the counterparty) will be unwilling or unable to fulfill the terms of the contract. This type of risk is to be distinguished from ***transfer risk***, which arises from the possibility that foreign exchange may not be available to the counterparty to meet its obligations.

Options. The contractual right, but not the obligation, to buy or sell a specified amount of a given commodity or financial instrument at a fixed price before or at a designated future date.

Principal rescheduling. Formal deferment of principal obligations, with new maturities applying to the deferred amounts.

Syndicated bank credit. A financial credit involving several bank lenders who are linked through various legal clauses governing both the distribution of payments made by the debtor and the conditions for changing the terms of the credit.

communications. Accordingly, investors' exposure to TELMEX credit and Mexican transfer risks was effectively transformed into an exposure to AT&T credit and US transfer risks. Other forms of collateralization have included bank deposits, electricity payments, and credit card receivables.

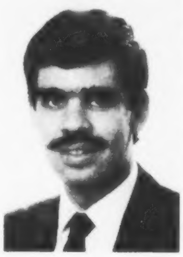
But the use of collateralization also involves actual and potential costs for the borrowing entities. In effect, by pledging existing assets or future receipts, borrowers may lose future financial flexibility, as well as lower the seniority of creditors with unsecured debt. Moreover, other re-entrants may find themselves similarly having to pay higher borrowing costs, a development that would be of concern to government officials.

Finally, in customizing borrowing instruments, a relatively small number of entities have also resorted to the wider range of financial risk management techniques that are now more feasible thanks to the entities' improved creditworthiness. These include interest rate and commodity hedging mechanisms, which allow borrowers to reduce their exposure to price volatility. By limiting their "open positions" (contracts not fully offset by futures transactions or fulfilled by delivery), borrowing entities thus minimize the risk of adverse price developments being translated into their international obligations and receipts. Such an approach may also be used by country authorities, as illustrated in the case of Chile (relatively widespread use of interest rate hedging) and Mexico (commodity hedging through the sale of future oil contracts consistent with the price assumed in the government budget).

The years ahead

The success achieved so far by some Latin American countries in regaining international capital market access, while still limited, is a welcome development. But further progress will depend largely on the sustained implementation of sound economic and financial policies. This needs to be supported by continued efforts to avoid excessive new indebtedness and to reduce exposure to adverse developments in exogenous prices (e.g., through greater use of market-based risk management techniques). This should be accompanied by a careful use of collateralization and other credit enhancements, with an eye to maintaining an appropriate balance between the immediate gains of lower borrowing costs and potentially adverse longer-term implications for liquidity management.

Industrial creditor countries can also contribute to the process by helping to expand the pool of investors that may be tapped by developing countries and opening up their markets for developing country goods and services. With mutually reinforcing actions in both developing and industrial countries, entities with solid financial prospects will be increasingly able to complement their access to domestic sources by taking advantage of the broader opportunities offered on international capital markets. ■



Mohamed A. El-Erian *from Egypt, is a Division Chief in the IMF's Middle Eastern Department. He was earlier in the Exchange and Trade Relations Department. A graduate of Cambridge, he holds a doctorate from Oxford.*

NEW FROM THE WORLD BANK GROUP

Video Series Shows How to Promote Foreign Investment in Developing Countries

Send coupon to:
The World Bank
Office of the Publisher
Room T8055
1818 H Street, NW
Washington, DC 20433

Return this coupon now for a brochure describing 8 videocassettes that portray

1. **Approaches and Techniques in Marketing a Country** provides an introduction to promotional institutions and programs, focusing on successful approaches and techniques.
2. **Success Stories of Foreign Collaboration in Export-Oriented Investment** highlights export-oriented investment success stories in developing countries which were dependent on foreign direct investment or other foreign private collaboration.
3. **The Improving Foreign Investment Climate in Sub-Saharan Africa** focuses on the special needs of Sub-Saharan Africa and what is being done to create the pre-conditions for foreign investment promotion in the region.

☐ YES. Please send me the descriptive brochure on Foreign Investment Promotion by Developing Countries. I understand that topics covered will include the institutional and public relations approaches to marketing a country; success stories from Mauritius, Caribbean/Central America, and Asia; plus debt equity swaps and privatization programs in Sub-Saharan Africa.

Name

Address

City/State

Postal Code/Country

Innovations in Debt Relief:

Creditor countries have increased concessions in granting debt relief to reduce the debt burden of indebted countries

Thomas Klein
Debt and International Finance Division, The World Bank

Recent moves by the Paris Club have opened the possibility of reducing the debt burden of severely indebted low-income countries through debt cancellation and restructuring. In doing so, the Paris Club has attempted to broaden the approach taken in September 1988 under "Toronto Terms," moving to encompass some of the ideas expressed in a proposal by then UK Chancellor of the Exchequer, John Major, of September 1990, known as "Trinidad Terms."

The Paris Club is the multilateral forum that helps developing countries restructure their debts to governments and officially guaranteed export credits. Traditionally, the Paris Club helps indebted nations resolve temporary international liquidity problems by restructuring maturities falling due in one to three year consolidation periods. Interest on rescheduled debt is usually at concessional rates for ODA (official development assistance) debt and at market rates for non-ODA debt. Over the past few years, creditor governments have realized that many developing countries, especially the severely indebted low-income nations, face intractable debt problems that demand a more flexible and longer-term approach and that repeated reschedulings through the capitalization of interest have been a major cause of the increase in the stock of debt in some cases.

This prompted Mr. Major's proposal that the entire stock of debt up to an agreed cut-off point be restructured. Two thirds would be canceled under this proposal, and the repayment period for the remainder would be 25 years, with 5-years' grace. For countries facing severe cash flow problems, moratorium interest (interest on restructured debt service obligations) could be capitalized (i.e, added to the principal) for five years and later payments could be graduated and linked to the country's export capacity.

More extensive debt relief for severely indebted low-income countries was endorsed by the July 1991 Group of Seven summit in London and by the Interim Committee and the Development Committee during the Annual Meetings of the IMF and the World Bank at Bangkok in October 1991.

In December 1991, the Paris Club introduced new terms for two low-income countries: Nicaragua and Benin, and in January 1992 these terms were applied to Bolivia and Tanzania. At first sight, the new menu of terms may appear short of the original Trinidad Terms proposal. The agreements dealt only with maturities falling due during 15-30 month consolidation periods plus arrears (which accounted for a substantial portion of Nicaragua's Paris Club debt). Also, the accords called for a 50 percent reduction in the net present value of debt, rather than a uniform cancellation of principal of 66 percent.

The agreements, however, also included a "good will" clause under which the Paris Club agreed to consider further debt relief after the expiration of the consolidation period, and a commitment to meet at the end of three to four years to consider the matter of the stock of debt. At that time, the debtor country would be expected to have fully implemented its earlier agreements (captured in the "Agreed Minutes" of the Paris Club), made comparable debt relief arrangements with other creditors, and continued appropriate arrangements with the IMF.

If the remaining stock were to be restructured on no less favorable terms than the initial agreements, these terms would allow creditors to partially write off their debts in stages: successive Paris Club agreements dealing with current maturities of three to four years, followed by a final agreement on the remaining debt.

Creditors will reschedule ODA loans on a long-term basis at concessional interest rates. (Many creditors have already canceled their ODA claims on the poorest countries.) For non-ODA loans, creditors have two main options: (1) write off 50 percent of the consolidated debt and reschedule the remainder at market rates, with repayment over 23 years, including a grace period of six years; or (2) reschedule debt at concessional interest rates so as to reduce by 50 percent in net present value terms the payments due, with a 23-year repayment period, but without a grace period. For those creditor countries that are currently unable to grant concessional relief, the agreements allow a third option, which consolidates debt at market rates, with repayment over 25 years, including 14-years' grace.

In September 1990, the Paris Club introduced new terms for lower middle-income countries (see box for details). One feature of these accords was to permit voluntary swaps of debt for local currency obligations, such as debt-for-nature swaps. ODA debt can be exchanged without limit; the swap ceiling for

The Paris Club

non-ODA debt is normally equal to 10 percent or $10 million, whichever is higher. These swap possibilities were incorporated in the Poland and Egypt agreements of 1991 and also in the new terms of low-income countries.

Innovations, in brief

Broadly speaking, five major changes have been introduced by the Paris Club over the past few years to help the low-income countries:

- Under exceptional circumstances, the Paris Club will consider canceling or providing equivalent restructuring of the entire stock of a country's official debt contracted before a cut-off date;
- The interest rates on consolidated nonconcessional debt can now be substantially below market rates;
- Longer repayment periods for rescheduled nonconcessional debt;
- A menu approach for creditors, under which they can choose the modality of debt relief; and
- A move toward equalizing burden sharing among creditors so that each creditor's debt relief agreement would achieve an agreed net present value target.

The Paris Club is not likely to respond with restructuring of concessional debt or debt cancellation for countries that need debt relief only to bridge temporary liquidity problems. Conventional Paris Club agreements are likely to continue in those cases.

Paris Club's exceptional rescheduling terms

Toronto Terms: October 1988–June 1991

Eligibility: Countries designated by the World Bank as "IDA-only" borrowers (i.e., eligible for concessional assistance from the International Development Association) that have very heavy debt-service obligations, low per capita income, and chronic balance of payments problems that render the country unable to service debts on conventional terms. The countries must have comprehensive adjustment programs in effect that are supported by IMF upper-credit tranche, or SAF or ESAF arrrangements. Eligibility is determined on a case-by-case basis.

Repayment terms:

ODA Debt	Non-ODA Debt
Maturity: 25 years Grace: 14 years Interest: No higher than original rates	*Option A:* Cancel one third of eligible maturities and reschedule the remainder with a 14 year maturity including 8-years' grace. Market-related moratorium interest rates. *Option B:* Same repayment period as for ODA debt but market-related moratorium interest rates. *Option C:* Same repayment terms as Option A but moratorium interest limited to $3^1/_2$ percentage points below market rates or 50 percent of the market rates, whichever is the smaller reduction.

New terms for lower middle-income countries: September 1990

Eligibility: Per capita below $1,195. Countries must also have a high proportion of debt to official creditors and must demonstrate a heavy burden of overall indebtedness. Beneficiary countries must have comprehensive adjustment programs supported by upper-credit tranche IMF resources. Eligibility is determined on a case-by-case basis.

Repayment terms:

ODA Debt	Non-ODA Debt
Maturity: 20 years	Maturity: 15 years
Grace: 10 years (maximum)	Grace: 8 years (maximum)
Interest: No higher than original rates	Interest: Market-related

Swap Arrangements: Paris Club eligible debt can be exchanged for local currency obligations, such as debt-for-nature and debt-for-equity swaps. Participation on a voluntary basis. No limits on ODA debt. For non-ODA debt, 10 percent usually of eligible maturities or $10 million, whichever is higher.

New exceptional terms for low-income countries: December 1991

Eligibility: Same as for Toronto Terms.

Coverage: Agreements reschedule arrears and current maturities for 12-18 month periods with an understanding that the remaining stock of debt will be considered for debt relief after a three-to-four year period.

Repayment terms: Graduated repayment schedule.

ODA debt	Non-ODA debt
ODA debt: To be rescheduled on a very long-term basis.	Non-ODA debt: Menu approach. *Option A:* Write-off 50 percent of debt and reschedule the remainder at market rates. Maturity: 23-years; grace: 6 years. Market-related moratorium interest rates. *Option B:* Consolidate at concessional rates so as to reduce by 50 percent in net present value terms the payments due. Maturity: 23-years; no grace period. Consolidate at market rates. Maturity: 25 years; grace: 14 years. (Same as Option B on Toronto Terms.)

Swap arrangements: Same as under the new terms for lower middle-income countries.

Assessing a Country's Debt Burden

How various forms of debt relief affect measures of the debt burden

Przemyslaw Gajdeczka
Economist, Research Department, IMF

Over the past three years, external creditors have strengthened the debt strategy by expanding the number of channels of support for countries with debt-servicing difficulties. These channels now encompass the provision of new financing, various forms of debt restructuring, including debt and debt-service reduction, and in the case of low-income economies, aid on highly concessional terms. Because some of these measures are very complicated, and are at times applied only conditionally, their effect on debt indicators, such as ratios of debt to GDP and to exports, and the ratios of debt service and interest payments to exports of goods and services, may differ depending upon the type of debt relief applied. (These indicators are regularly published in the IMF's *World Economic Outlook* and in the World Bank's *World Debt Tables.*)

Further, these debt indicators are likely to give an incomplete picture of progress in returning to external viability and can even be misleading when used in cross-country comparisons, because an increase or decline in the indicators of debt burden need not necessarily represent an actual change in the burden of debt. For instance, the action taken by the Paris Club creditors to reduce the present value of Egypt's and Poland's official bilateral debt by 50 percent would not be fully captured by such conventional debt indicators.

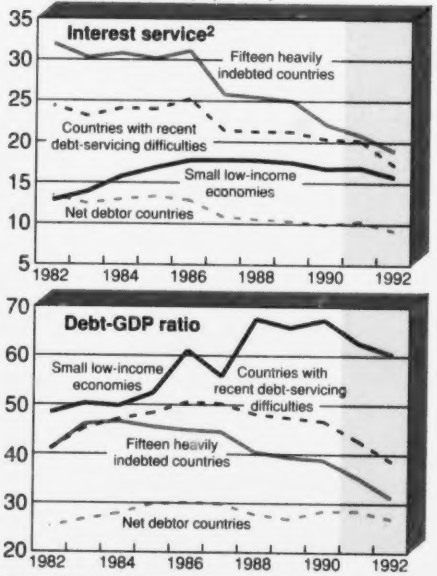
In order, therefore, to properly assess changes in the debt burden of a country and to facilitate cross-country comparisons of the debt burden, it is important to understand the content and purpose of specific debt relief measures. It is also important to take into account the fact that many low-income countries have obtained financial assistance on highly concessional terms and that a number of developing countries have concluded comprehensive debt-restructuring agreements that provide debt relief under a menu of concessional options.

Impact on debt indicators

In general, measures that lead to new lending increase the debt indicators, while debt and debt-service reduction operations contribute to their decline. A considerable decline in various debt burden indicators has been the most visible result of the current debt strategy (see charts). For example, for the group of net debtor developing countries, the debt-GDP ratio fell by nearly 2 percentage points from its peak in 1986 to 28 percent in 1990. Debt-GDP ratios in the group of countries with recent debt-servicing difficulties and the group of 15 heavily indebted middle-income countries declined by 4–6 percentage points. Over the same period, the 15 heavily indebted countries also experienced a large decline in the ratio of interest to exports of goods and services. The improvement in the aggregate indicators reflects largely the progress made in the highly indebted middle-income countries with large commercial bank debts. In contrast, the small low-income economies —including those in Sub-Saharan Africa—experienced a considerable increase in their debt-GDP ratios over the past five years, while their interest-service ratios have remained broadly unchanged.

Differences in the growth rate of the debt stock are key in explaining the difference in the evolution of debt burden indicators for the small low-income countries and the middle-income highly indebted countries. Although both groups of countries have experienced comparable rates of economic growth and similar increases in the volume and value of exports, the debt-export and debt-GDP ratios of the low-income countries have continued to rise while those of middle-income countries have declined. In contrast to the small low-income economies, the highly indebted middle-income countries have experienced relatively little increase in their debt, especially over the past two years, largely because of debt and debt-service reduction and market-based debt conversions. In fact, for the 15 heavily indebted countries, the impact of debt-reduction

Developing countries: interest service and debt-GDP ratios[1]
(In percent)



Source: IMF, *World Economic Outlook*, October 1991.
[1] Shaded areas indicate IMF staff projections.
[2] Interest due, in percent of exports of goods and services.

The group of 15 heavily indebted countries comprises: Argentina, Bolivia, Brazil, Chile, Colombia, Côte d'Ivoire, Ecuador, Mexico, Morocco, Nigeria, Peru, the Philippines, Uruguay, Venezuela, and Yugoslavia.
Countries with recent debt-servicing difficulties (75 countries) are defined as those countries that incurred external payments arrears or entered official or commercial bank debt rescheduling agreements during 1986-90. Information on these developments is taken from relevant issues of the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions.

operations has offset roughly one half the increase in debt attributable to net borrowing.

In some cases, however, the provision of additional financing or the implementation of various debt reduction schemes resulted in a temporary deterioration in the debt burden indicators. This occurred, for example, when amortization payments associated with debt-equity swaps or debt buybacks added to the amount of originally scheduled debt-service payments, hence increasing the debt-service ratio. Similarly, the repayment of arrears (e.g., through refinancing) can boost the debt service ratio in a given year. In both cases, these transactions are financed by additional resources that would not have been otherwise available to the country.

Measures of debt burden

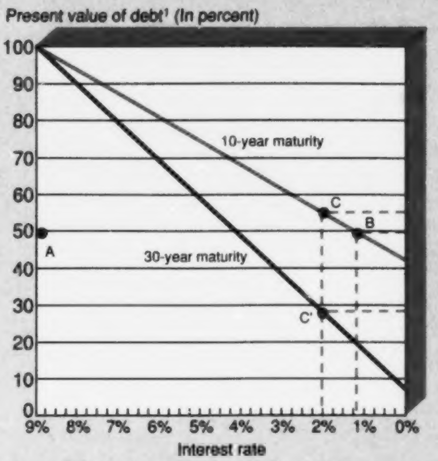
There are three main forms of concessional debt relief: (1) debt-stock reduction or forgiveness, (2) debt-service reduction, and (3) a lengthening of the repayment period on debt with concessional interest rates. Only the first two options affect conventional measures of the debt burden. Debt-stock reduction results directly in a lower debt-GDP ratio, while both debt and interest-service reduction lower the debt-service ratio. By contrast, a lengthening of the repayment period on concessional debt has no effect on either the debt-service ratio or the debt-GDP ratio.

However, all three forms of debt relief have an impact on the net present value of debt, which provides a more accurate measure of the effective debt burden (see box). The advantage of the present value measure is that it summarizes complex loan terms in a single number that allows comparison across debts with different term structures. One disadvantage is that present value calculations require more detailed and less readily available data than conventional measures. They also require judgments regarding the appropriate discount rate; for example, it could be argued that the relevant rate for a developing country borrower would be the interest rate on its commercial debt rather than the interest rate prevailing in the lending countries, which would probably be lower.

Of course, no single measure can capture all aspects of the debt burden. For example, two debts can have the same present value, even though one has a short maturity and the other a long maturity. If it is costly to amortize or roll over loans, then the short-term debt may be more burdensome. There may also be cases in which the entire time profile of debt-service payments is relevant, for example, when the aim is to match the debt-service profile to the projected cost and revenue stream of investment projects.

Debt relief, concessionality, and the present value of debt

The chart illustrates three different ways of achieving a reduction in the present value of the debt, assuming that the relevant market interest rate is 9 percent and that the debt is payable upon maturity. The two downward sloping lines show the impact on the present value of the debt of reducing the interest rate below the market rate for two different maturities; for example, a 2 percent rate of interest on 10-year debt reduces the present value of the debt to 55 percent of face value. If the debt is contracted at the market interest rate and is repayable in 10 years, debt relief equal to 50 percent of the present value can be achieved by cutting the stock of debt in half (point A in the chart), or by reducing the interest rate to just over 1 percent (point B). In the case of debt with a concessional interest rate of 2 percent, a 50 percent reduction in the present value of debt can be achieved by extending the term from 10 years (point C) to 30 years (point C'). As the interest rate is concessional, the effective debt burden is reduced even though the stock of debt and the amount of annual interest payments remain unchanged. This is because the implicit subsidy (that is, the gap between market and concessional interest rates) accumulates over a longer repayment period. (Of course, a lengthening of the repayment period of debt contracted at the market rate of interest would not reduce its present value.)



Source: IMF, *World Economic Outlook*, October 1991.

[1] These present value calculations use a discount rate of 9 percent and assume that principal is repaid in full at the end of the term. If repayments are made earlier, the degree of concessionality involved in lower interest rates would be less and therefore the slope of the lines in the diagram would be less steep.

An implication of the analysis presented in the box is that the higher the degree of concessionality of debt, the lower the effective debt relief provided by a given amount of debt or debt-service reduction. This reflects the fact that the present value of concessional debt is always less than the face value. Therefore, in the case of concessional debt, a reduction in the face value will not result in a one-to-one reduction in the present value—that is, in the effective debt burden—but rather the decrease will be less.

The concessionality of debt also affects the comparability of debt-GDP ratios across countries, even where the debt has never been restructured. Debt-GDP ratios generally have been higher for low-income countries than for other developing countries. For example, in Sub-Saharan Africa the average debt-GDP ratio in 1990 was 84 percent, approximately double the ratio of the 15 heavily indebted middle-income countries. The debt-GDP ratio, however, overstates the debt burden of Sub-Saharan Africa because nearly 40 percent of the region's debt is at highly concessional interest rates (approximately 2 percent). After adjusting for the degree of concessionality—that is, expressing the debt in present value terms—the debt-GDP ratio in Sub-Saharan Africa would decline to 68 percent, while it would remain broadly unchanged for middle-income countries, where debt is mainly on commercial terms.

Similarly, the evolution of debt-export and debt-service ratios over time for an individual country (or a group of countries) would accurately indicate the change in the country's effective debt burden only if there are no major changes in the degree of concessionality over time. For example, if a country refinanced its existing nonconcessional debt with loans on concessional terms, the observed debt-export ratio would not reveal the reduction in the effective debt burden. Alternatively, if a country rescheduled its existing concessional debt with a longer grace or repayment period, the reduction in the present value of debt-service payments would not be reflected in a lower debt-service ratio. Thus, the observed change in conventional debt indicators may not fully reflect the benefits of debt restructuring. ■

Facilitating Foreign Investment

Some dos and don'ts

Guy Pfeffermann

Director, Economics Department and Chief Economic Advisor, IFC

Attitudes toward foreign direct investment (FDI) have changed considerably over the last two decades. During the 1970s, many developing country governments discouraged such investment on the grounds that foreign firms would reap "rents" (i.e., unearned profits) at the expense of the local economy. At the same time, the abundant supply of commercial bank credit crowded out FDI inflows. But then along came the debt crisis, drying up the flow of bank credit to developing countries.

As a result, during the 1980s, many countries were forced to ease their restrictions on FDI and change their policies to attract FDI. Over and above the lack of alternative financing, governments realized increasingly that FDI can bring benefits that are vital in an age of increasing international competition and that cannot be obtained in any other way: technology, new management methods, access to export markets, and generally a way of becoming better "plugged into" the global market place. Today, far from deterring investment, developing countries, as well as the emerging market economies of Eastern and Central Europe, are competing with each other to encourage foreign investors.

The Bank Group's Foreign Investment Advisory Service (FIAS) has been operating for five years, providing advice to over 40 governments, including those of formerly centrally planned economies, on how to improve the climate for productive FDI. Its advice is tailor-made to the particular needs and circumstances of each country. Nevertheless, out of the body of FIAS recommendations, several common threads have emerged over the years.

Listed below are some of the most important "dos" and "don'ts." But a caveat is in order: No single change in policy along the lines of any or all of the following recommendations will ensure a substantial FDI inflow unless corporations consider the overall business climate to be satisfactory and can expect government policies to be reasonably stable. Acceptable guarantees of private property rights are of course fundamental.

Word of mouth and the attitudes of established investors are the most potent promoter/deterrent of foreign investment. Indeed, research has shown that "agglomeration effects" (i.e., the existence of already-established foreign and domestic firms and of the necessary infrastructure) are one of the most powerful stimulants for other firms to invest in a foreign country. Still, any serious attempt to improve the business climate is likely to include many of the following FIAS recommendations. This advice has not only proven to be of key importance in Eastern Europe but is also highly relevant to developing countries, such as India, which are now trying to attract larger flows of FDI.

Screening investment proposals

Do permit unrestricted entry of foreign investment in general, limiting the number of investments that must be screened for approval to a short "negative list." This is more efficient than screening all investment proposals one by one under a "positive list" of acceptable pursuits. The negative list might include, for example, industries related to national defense or highly protected industries. It is best to keep the negative list short and to avoid using vague or open-ended criteria, such as "activities of strategic importance" or "small businesses." All investment in nonlisted activities should be allowed to proceed without examination or need for approval. Such projects are, of course, subject to the laws of the land, which apply to all investments, domestic and foreign, such as laws relating to registration, safety, labor, environment, and taxes.

Investment incentives

Do define clearly the types of investment activities that will garner incentives and then grant these incentives automatically, minimizing discretion or negotiation. In an ideal investment climate, there would be no need for incentives. Most developing countries, however, fall short of this perfect situation and need temporary incentives to encourage investment. The incentive should be linked directly to the type of activity that is to be encouraged, for example, exporting or employing labor and not just for the mere act of investing. Incentives are far less attractive to investors if they must bargain in order to get them. Bargaining over incentives wastes time, adds uncertainty, and invites corruption.

Don't favor foreign investors over local ones in granting incentives. Many developing countries are granting excessive incentives to foreign investors. Offering superior benefits to attract international capital is not only unfair to national entrepreneurs but will also encourage questionable joint ventures, in which foreign partners will be sought merely to qualify for incentives. Ideally, government policy should be non-discriminatory to domestic and foreign firms alike, in line with the principle of national treatment.

Don't use tax holidays. Experience shows that total elimination of taxes is not necessary to attract serious corporations. Such companies expect a reasonable level of taxes. In fact, they strongly prefer a steady, reasonable tax rate that enables them to make long-term financial plans, rather than a tax holiday followed by high, uncertain rates. Moreover, eliminating tax holidays will boost government revenues.

Transfer of dividends and remittances

Do permit unrestricted transfers abroad of dividends, capital, royalties, fees, and repayment of international loans. Investors bring their capital to emerging markets to earn a profit, and they must be assured that they will be able to take their earnings home. It is fair for governments to tax these earnings at reasonable rates. But governments should not interfere with foreign investors when they move their own funds out of the country. The only formality should be to fulfill reporting requirements, so that governments can keep track of capital flows.

Foreign Investment Advisory Service

In response to a strong interest among governments for attracting foreign direct investment, the International Finance Corporation created FIAS in 1986. Two years later, the Multilateral Investment Guarantee Agency (MIGA) was added as a joint venture partner in sponsoring FIAS.

Today, FIAS works around the world, advising governments in over 40 countries on how to obtain increased flows of foreign direct investment. FIAS offers help in building an attractive investment climate by counseling governments on laws, policies, regulations, and procedures. It also assists in creating an effective institutional framework for governments to interact with investors, including developing investment promotion strategies. FIAS helps governments to meet their long-term development needs by maximizing the advantages of foreign investment for transferring capital, technology, and managerial expertise. With today's attention focused on accelerating economic growth through a dynamic private sector, FIAS is a key player in the World Bank Group's efforts.

Don't place restrictions on foreign investors' access to foreign exchange. Governments should be willing to convert currency at the prevailing rate. Limiting access to foreign exchange will deter foreign investors, particularly those who intend to sell products locally, which may be in short supply.

Governments may worry about the balance of payments effects of allowing the free transfer of dividends and other remittances. So long as few foreign firms have invested in a country, and new firms are coming in little by little, foreign exchange outflows are unlikely to be substantial. Indeed, it may take years for a newly established firm to make profits, and so long as the business climate is good, much of the profits are likely to be re-invested rather than remitted. If in later years foreign investment should play a more prominent role, that would normally be part and parcel of a dynamic economy, which experiences net inflows for years. The balance of payments drain of capital and dividend remittances will usually be balanced by additional exports and efficient import substitutions when the investments are made in undistorted markets. Only much later do sustained net outflows occur (for instance, in Taiwan Province of China, Hong Kong, and Singapore), and that is a sign of success. Meanwhile, should a temporary balance of payments deficit occur, governments can always impose emergency restrictions on foreign currency outflows.

Investment promotion

Don't undertake expensive investment promotion efforts, such as sending missions abroad or advertising internationally, until the investment climate at home is satisfactory. It is not productive to try to lure investors to visit a country where there are still serious shortcomings or uncertainties in the business environment. Before international efforts are made to attract new investors, a promotion agency should first establish a "service function" at home to help foreign investors who come to the country on their own initiative.

Do establish an investment promotion agency with close ties to the local private sector and a focus on investor support rather than on screening. A quasi-governmental body with a mixed public/private board of directors may be the best arrangement. This would be superior to a purely public agency, which investors might distrust. A quasi-governmental agency can also have advantages of administrative freedom, such as the ability to offer competitive salaries to attract top-quality employees. At the same time, strong links of promotion agencies to the government are essential. Promotion agencies should help investors in very practical ways, for example, by steering them through the different bureaucracies with which they must deal. The promotion agency should also keep investors up-to-date on changes in laws and business regulations. ■

MIGA: Up and Running

As the developing world searches for foreign investment, the World Bank Group's newest affiliate—the Multilateral Investment Guarantee Agency—is poised to help

Laura Wallace
Assistant Editor

For developing nations throughout the world, foreign direct investment (FDI) holds enormous attraction. After decades of trying to acquire needed funds through other means—notably commodity cartels, commercial bank lending, and multilateral and bilateral aid—they are increasingly turning to foreign investors, hoping to convince them to take a bigger stake in the emerging private sectors. The capital is out there: in terms of annual flows, FDI rose dramatically during the 1980s, reaching around $132 billion. But very little of that has gone to developing countries, especially in the last few years, with only ten of these countries accounting for the bulk of those funds (see World Economy in Transition on page 50).

A major obstacle to foreign investment in the developing world is that besides the usual commercial risks, potential investors believe they face serious political risks—a perception that often means the difference between proceeding with, or abandoning, a project. Although wholesale nationalizations of foreign investment—such as occurred under Castro in Cuba and Allende in Chile, and in post-revolutionary Iran—are rare, the wave of expropriations and other discriminatory actions in the 1960s and early 1970s have left vivid memories. For that reason, the Multilateral Investment Guarantee Agency (MIGA) was established in April 1988. Its mission: to promote private investment for economic development through insuring investment against noncommercial (i.e., political) risk, and providing promotional and advisory services to help members create an attractive investment climate.

Two years after becoming operational, MIGA is now up and running—indeed, recent indications are that there will be enormous demand for its services, especially in light of changes in the former communist countries. The more pragmatic, less ideological attitude of developing countries toward private investment is being translated into a greater acceptance of the private sector as an engine of growth. Foreign investment, after all, offers far more than just capital; it also holds the promise of technology transfer, training and management expertise, and access to world markets.

Political risk insurance

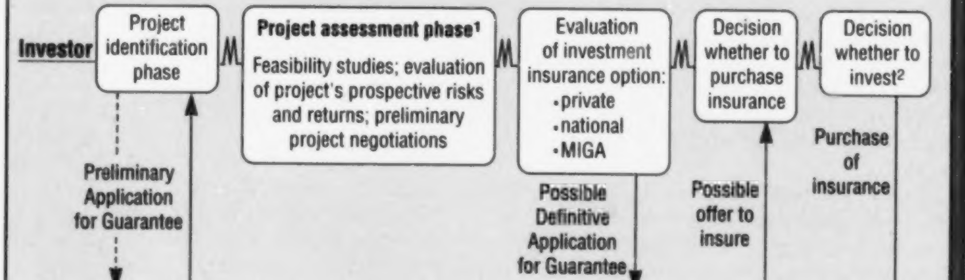
Insuring investment against political risk, of course, is nothing new. Back in 1948, a US government program first offered this form of "catastrophe" insurance to US firms investing in Western Europe. These days, most industrial countries and a few developing countries have their own national insurance programs, and several private insurers also offer this type of coverage. However, three key problems arise: (1) public insurers generally limit their coverage to investors from their own countries; (2) there are many types of projects that public insurers cannot fully cover (e.g., large extractive or industrial projects, and certain projects involving financial institutions); and (3) the three largest public insurers (Japan, the United States, and Germany)—reflecting the preferences of their nationals—tend to concentrate investment activity on their own regions, leaving large parts of the world, such as Africa, relatively neglected.

MIGA was essentially created to fill these gaps, working, when needed, as a coinsurer with, or a reinsurer of, other insurers (see "Increasing private capital flows to LDCs," by Ibrahim F.I. Shihata, *Finance & Development*, December 1984). Four basic types of coverage are available:

Currency transfer. Protects against losses arising from an inability to convert local currency returns into foreign exchange for transfer outside the host country;

Expropriation. Protects against loss as a result of acts by the host government that may reduce or eliminate ownership of, control over, or rights to, the insured investment;

The MIGA guarantee process


Investor
Project identification phase
Project assessment phase¹
Feasibility studies; evaluation of project's prospective risks and returns; preliminary project negotiations
Evaluation of investment insurance option:
• private
• national
• MIGA
Decision whether to purchase insurance
Decision whether to invest²
Preliminary Application for Guarantee
Possible Definitive Application for Guarantee
Possible offer to insure
Purchase of insurance
MIGA
Notice of Registration to investor (within two days)
MIGA underwriting review (two to four months)

¹This phase can vary in duration from a few months to many years.
²The decisions whether to invest in a project and to purchase investment insurance are often made simultaneously.

War and civil disturbances. Protects against losses arising as a result of any military action or civil disturbance that destroys or damages tangible assets of the project enterprise or interferes with its operations (e.g., those resulting from politically motivated events of revolution, insurrection, *coup d'état*, sabotage, and terrorism); and

Breach of contract. Protects against losses arising from the investor being unable to obtain and/or enforce a decision or award against a host country that has repudiated or breached an investment contract.

Coverage will normally be limited to protecting new investments in MIGA-member developing countries. But MIGA can also insure acquisitions involving the privatization of state enterprises, and new capital associated with the expansion, modernization, or financial restructuring of an existing enterprise. Forms of investments that may be covered include equity, loans made or guaranteed by equity holders, certain forms of non-equity direct investment (e.g., technical assistance and management contracts, and franchising and licensing agreements), and loans made by financial institutions under certain conditions.

Indonesia

When the Freeport McMoran Copper Company began to investigate ways of expanding its copper, gold, and silver mining project in Irian Jaya, Indonesia a few years ago, it ran into problems that are fairly typical for such complex undertakings in the developing world. The original project, constructed in the early 1970s, had involved building a 104-kilometer access road through the jungle, tunneling through two mountains, erecting an aerial tramway from the mine to the mill site, and constructing a 115-kilometer slurry pipeline to the coast. The $500 million expansion was intended to develop a new mine site nearby, thereby boosting ore production from 21,000 metric tons per day to 52,000. In the process, an additional 1,100 jobs would be generated, and the Indonesian Government stood to receive $90 million in foreign exchange.

The US-German-Indonesian owners wanted to raise about 75 percent of the capital from commercial banks in the form of "non-recourse" financing. But this type of financing—which relies on cash flow from the project, as nonproject assets are not pledged—requires a complex division of the risks and rewards among the lenders, suppliers, buyers, and owners. MIGA found it could play a catalytic role in assembling the final financing package by providing the initial $50 million in coverage. The US national insurer, the Overseas Private Investment Corporation, followed by extending $100 million in coverage (it had already been involved in the original project). Private insurers then completed the package with significant amounts of short-term, renewable coverage.

In an effort to help investors take a longer-term perspective, contracts typically will be written for 15 years (in exceptional cases, 20 years), compared with the one to three years prevalent in the private insurance market (which primarily provides expropriation coverage). During the MIGA application process (see figure), projects are reviewed to make sure that they are financially, economically, and environmentally sound, and contribute to the host country's development needs (e.g., job creation, technology transfer, foreign exchange benefits, and export generation). While there is no stated minimum investment that may be covered, there is currently a maximum coverage limit of $50 million per project.

Premiums are based on the type of project (e.g., manufacturing) and type of coverage (e.g., currency transfer) desired, taking into account project-specific conditions. Annual premiums for each coverage generally fall in the range of 0.50–1.25 percent of the amount insured. MIGA's rates tend to be slightly higher than those of other national insurers, owing to the fact that the agency must be financially self-sustaining.

At this stage, it is impossible to predict the size and number of claims that MIGA will realize in the years ahead—no actuarial loss tables exist in the investment insurance business—but the experience of other insurers suggests that: (1) currency transfer will be the most frequent form of claim; (2) expropriations will be the largest individual claims; and (3) there will be a great variation in the number and size of claims in any given year. Over 1948–90, for example, US-insured investors received more than $510 million from the US national scheme in settlement of 241 claims, with currency transfer by far the most frequent type of claim.

Progress report

Contrary to perhaps overly optimistic business expectations, MIGA has devoted its first two years largely to recruiting staff, developing contract language and necessary procedures, trying to publicize MIGA's services, and recruiting country members. As of mid-December 1991, 74 states had completed their membership requirements (16 developed and 58 developing countries), with another 37 in various stages of joining. These countries are spread across the globe, including all of Eastern and Central Europe.

On the guarantee side, the first two fully operational years (ended June 30, 1991) have resulted in 15 guarantee contracts being executed, supporting investments totaling nearly $2 billion; MIGA's maximum contingent liability on these contracts totaled $191.2 million. These projects are expected to generate an estimated 6,380 jobs, as well as $1 billion in foreign exchange earnings over a five-year period. The insured investors come from Canada, Denmark, France, Japan, Luxembourg, the Netherlands, and the United States; the host countries are Bangladesh, Chile, Hungary, Indonesia, Madagascar, Poland, and Turkey.

The investments themselves are in a wide variety of sectors (services, mining, tourism, telecommunications, agriculture, and manufacturing), although mining has tended to dominate. Some of the projects include:

- a $6 million guarantee to Bering Netherlands B.V. for a newly privatized potato and grain processing company in Poland;
- a $49.8 million reinsurance agreement with the Export Development Corporation of Canada to enable Canadian-based Placer Dome, Inc. to develop a $335 million gold and silver mining joint venture in Chile; and
- $3.6 million in guarantees to Holding Savanna S.A., a French company, for three separate investments in hotel companies that will erect garden-style hotels in Madagascar.

As for policy and advisory services, MIGA has recently stepped up its efforts in that area. Promotional conferences have been held in Hungary, Jamaica, Ghana, and Pakistan, resulting in numerous joint ventures. Through the Foreign Investment Advisory Services (FIAS), a joint facility of MIGA and the International Finance Corporation (IFC), 21 advisory projects in 18 countries were completed in the past fiscal year (see article on page 46).

Looking ahead

MIGA is now poised to shift into a higher gear, ready to take on what should be a rapidly growing demand for its services. The early indications are quite positive: in fiscal year 1991, the number of applications received increased by 66 percent to 397 (besides the sectors already being insured, applications were received in oil and gas, agri/fishing, construction, forestry, power, and financial); in the first five months of FY 1991, there has been an additional 17 percent increase. Granted, most of these projects will not go forward in the near future, others will be delayed, and still others will proceed without MIGA support. However, the sheer size of this project pipeline bodes well for the new agency. ■

WORLD ECONOMY IN TRANSITION

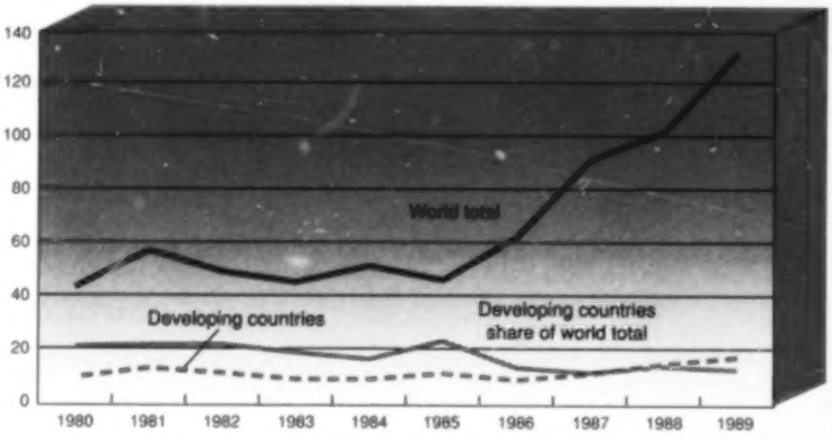
Recent Trends in FDI for the Developing World

During the second half of the 1980s, the volume of global foreign direct investment (FDI) grew from approximately $47 billion in 1985 to $132 billion in 1989. Flows to developing countries also increased during this period; however, they grew at a much lower rate than the flows to developed countries. As a result, the developing countries' share of global FDI flows fell from about 24 percent to 13 percent over the same period. Moreover, about two thirds of the flows to developing countries were concentrated in East Asia (primarily China, Malaysia, and Thailand) and Latin America (mainly Brazil, Argentina, Mexico, and Colombia).

The trends that are portrayed in the data point to several underlying forces that are at work in the world economy:

- International investment, in particular direct investment, has been growing more rapidly than world investment, implying an increase in the integration of the world economy through finance and ownership.
- There are parallels between rapid growth in foreign investment now, and the rapid growth of international trade over the last several decades. The rapid growth of world trade was led first by trade among developed countries. Later, developing countries joined in as the structure of the world economy changed and many of the developing economies abandoned policies with an anti-trade bias. In a similar fashion, during the 1980s, the increase in international direct investment was led by investment among developed countries.
- The decade of the 1980s saw a marked shift in the attitudes of developing countries toward foreign investment. Stimulated by changes in the international capital markets and in the determinants of competitiveness in international trade, many developing countries began actively seeking private sources of capital, particularly foreign investment, by redefining their development strategies, liberalizing their economies, and implementing a range of new policies.

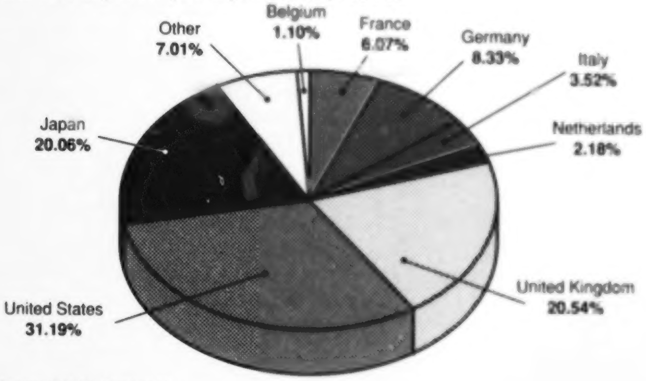
The issue now facing developing countries is whether they can increase their share of growing world FDI flows, and thus participate more fully in the internationalization of production that is now occurring. In order to do so, they will have to build on the policy improvements begun in the 1980s to facilitate an increased role for FDI in their economies. As in the case of trade reforms, this will be a long-term task involving detailed work and politically difficult decisions. The benefit from this effort, however, should be worth the costs involved.



Net FDI flows to developing countries

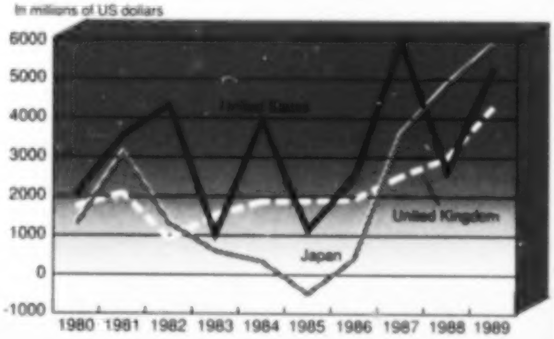
(In constant 1985 billions of US dollars)

Source: IMF, Balance of Payments Statistics, August 1991.



Net FDI flows from Organization for Economic Cooperation and Development (OECD) investors, 1980-89

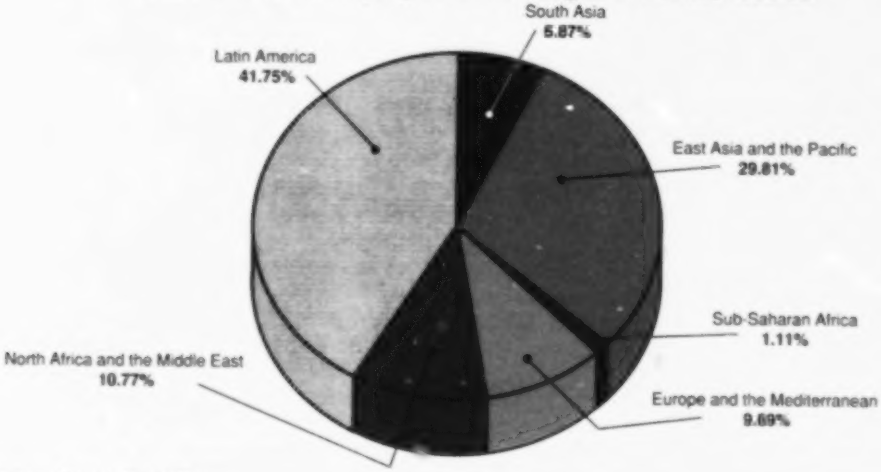
Source: OECD, March 1991.



Three major sources of FDI flows to developing countries

Source: OECD, March 1991.

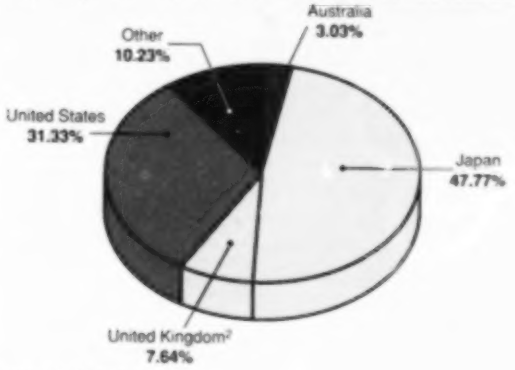
FDI flows to developing countries: regional trends, 1980-89



Source: IMF, Balance of Payments Statistics, August 1991.

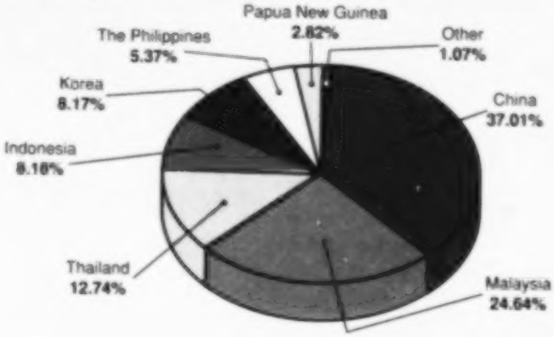
East Asia and the Pacific

The principal sources of direct investment flows, 1980-89[1]



Source: OECD, March 1991.

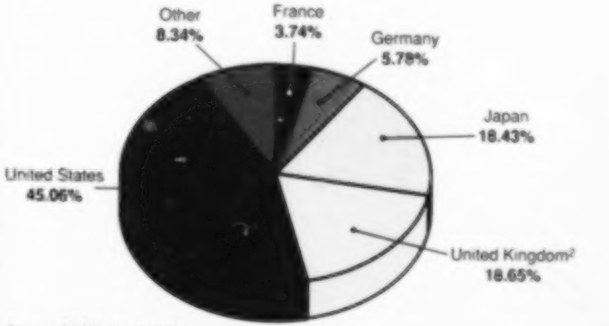
The principal destinations of FDI flows



Source: IMF, Balance of Payments Statistics, August 1991.

Latin America and the Caribbean

The principal sources of direct investment flows, 1980-89[1]

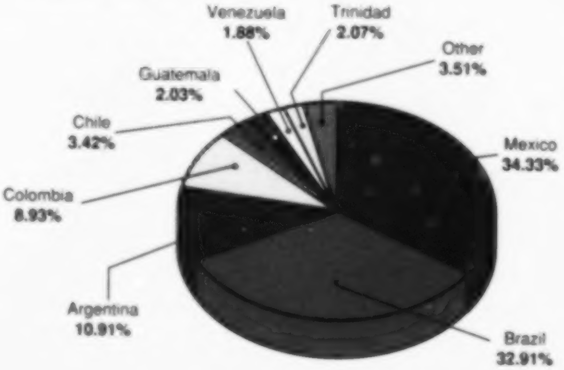


Source: OECD, March 1991.

[1] Data include only FDI flows from OECD Development Assistance Committee (DAC) countries.

[2] 1989 regional distribution for the United Kingdom estimated on the basis of 1988 percentage distribution.

The principal destinations of FDI flows



Source: IMF, Balance of Payments Statistics, August 1991.

Note: All charts are based on data that exclude flows to offshore banking centers.

Why Official Export Promotion Fails

A survey of experience and interviews with experts

Donald B. Keesing and Andrew Singer
Trade Policy Division, The World Bank

Most officials in developing countries seem to believe that export promotion—not only the task of persuading firms to export, but also the provision of services to support export marketing—is inherently a task for government. The predominant pattern has been to set up a public sector trade promotion organization (TPO) as the sole or main supplier of most or all services in support of export marketing, and to offer these services free of charge. A few countries, such as India and the Philippines, have set up more than one major public sector supplier of such services. As a result, public sector TPOs are now the rule in developing countries.

Our recently published study in the World Bank's Trade Policy Division (published by the Economic Development Institute—see box), however, finds that in these countries most TPOs fail to meet their objectives. Moreover, many are set up for the wrong reasons. Many countries appear to have been strongly influenced by donor agencies and their consultants in setting up TPOs. Almost all the current TPOs in developing countries are financed by the government, with supplementary financing in some cases from foreign aid or from charges for regulatory documents. One is predominantly funded directly by taxpayers through levies on imports (Sri Lanka). Two receive some obligatory fees from the private sector (India and Thailand). Zimbabwe is now introducing a surcharge on exports and imports to help support a new TPO.

Countries most inclined to rely on markets and private businesses in their development policies have generally allowed the simultaneous development of private services relating to exports and encouraged the emergence of private associations and chambers of commerce and industry offering some services of their own.

Problems with the basic concept

Our search for successful examples of official export promoting and marketing organizations and our interview findings on what went wrong show that the experience has nearly always been negative. Despite this, most experts interviewed believe that developing country TPOs can be, and sometimes are, effective both in providing marketing assistance and in pressing for needed policy improvements, particularly when (or if) they can achieve four crucial conditions:

- They enjoy the support of the business community;
- Are adequately funded;
- Are staffed with qualified people who are paid commercially competitive salaries; and
- Are somewhat independent of government.

Advocates of TPOs are almost always striving to achieve these conditions. However, TPOs meeting these conditions are virtually nonexistent in practice except in countries that have already achieved excellent policies and a strong policy commitment to expand manufactured exports.

In most developing countries, the function of supplying support services to exporters has been confused with another function important in the development of exports, that of ensuring a continuing dialogue between policy formulators and the business community. In richer, successful exporting nations, feedback is channeled through a well-developed structure of representative associations or chambers that continuously and aggressively promote the business community's viewpoint to the government. Many developing countries, however, have used this need for feedback from business as an argument for a specialized public sector agency to promote both the cause of exports and the needs of exporters.

Our research suggests that a public service organization is not well suited to serve as a mechanism for providing feedback from exporters on policy formulation. Unlike business people, public servants are rarely willing to speak out against bad policies or to criticize policymakers in the ministry they are affiliated with. Moreover, in the early stages of a policy transition, when feedback is vital, issues related to advice on policy tend to dominate the TPO's concerns, to the detriment of its ability to supply useful services. A further consequence of taking a position midway between government and exporters is that neither party to the dialogue is likely to trust the TPO, making it ineffective.

While TPOs in many developed countries have begun to charge for services, public service TPOs in developing countries are expected to provide information services free of charge on a single-supplier basis, as if information for exporters were merely an extension of the public library's function. However, the free, centralized provision of information services has not served the interests of export expansion. This approach has starved these services of money, hindered private service providers from entering the market, and retarded the exploitation of new information technologies by discouraging commercial information services. New information technologies, such as on-line data bases, mean that much of the information required by exporters can now be obtained on a pay-as-you-go basis, without the need for large, fixed investments in hard copy library materials. Setting up special libraries may be thus no longer the most cost-effective route to providing information for exporters.

Another argument for the state's continuing role in information services is that its diplomatic posts provide privileged access to commercially useful information from foreign governments. However, this does not justify having a public sector TPO operating as the sole supplier of this information. Even this privileged information can readily be disseminated through commercial suppliers for a fee.

This article is based on The Role of Support Services in Expanding Manufactured Exports in Developing Countries *by Paul Hogan, Donald B. Keesing, and Andrew Singer, published in the EDI Seminar Series by the World Bank, 1991, and particularly the authors' paper, "Development Assistance Gone Wrong: Failures in Services to Promote and Support Manufactured Exports."*

Profile of an ineffective trade promotion organization

Origins

- Set up initially on donor agency advice and with donor funding, not as a result of demand from exporters.

Planning and objectives

- No corporate planning, individual targets, or measurable departmental objectives.
- "Planning" starts with the amount of funds the government will allocate, from which the trade promotion organization then derives its program.
- Its role is viewed as carrying out the "national export strategy," policy advice, administrative tasks, and so on, rather than being responsible for export expansion.
- No consistency in focus: this year it is handicrafts, last year it was spices.
- Has never conducted, using its own resources, competent, formal, subsector studies of industries with export potential.

Relationship to government

- Government has no faith in trade promotion organization, but refuses to abolish it.
- Organization is seriously underfunded, so little or no funds are available for direct assistance to exporters.

Relationship with business community

- Strong cultural division exists between public servants and the business community, sometimes based on ethnic or caste differences, sometimes merely on lifestyle and attitudes.
- Business community needs coaxing to take part in any trade promotion organization activities and is solicited using financial inducements such as free travel.
- Instead of immediately distributing useful information widely to exporters, the trade promotion organization retains it as a bargaining chip.
- More services are provided to government than to exporters.

Missions and trade fairs

- Missions and trade fairs represent the only significant impact of the trade promotion organization on the business community.
- At least one third of missions consist of trade promotion organization staff or other public servants.
- Other participants are selected partly on the basis of noncommercial considerations, such as maintaining regional balance, favoring indigenous entrepreneurs, giving everyone a turn, or by drawing lots.
- Missions spend at least one third of their time overseas meeting government officials and other functionaries.
- Missions are mostly "exploratory," and rarely generate orders.
- There is no effective follow-up to assess impact.

Relationship to donor agencies

- Organizations has been the subject of at least two expert reports proposing major reforms.
- Organization has been effective at resisting major reform proposals.
- Organization is effective at playing donor agencies off against each other to obtain funding for its favored projects, such as overseas training for its staff, computers for trade information systems, and trade missions and trade fairs to attractive destinations.

Management

- Chief executive officer is appointed by a ministry and not by an independent board, and while some managers may be effective, others are political appointees and useless.
- Most top managers have no commercial experience.
- Organization has no effective managerial control over overseas commercial posts (for example, those in the diplomatic service may be controlled by the foreign ministry).

Staff

- Public servants are paid so badly that many have second jobs.
- Many spend 80 percent of their time at their desks and rarely do "cold" calls on firms to promote exporting or their services.
- Organization is overloaded with unmotivated clerical staff who spend most of their time reading papers, chatting, or dozing at their desks.
- Senior staff are actively looking for a way out, preferably a highly paid position with a donor agency in an attractive location.

Why TPOs fail

Policies impeding and neglecting the development of commercial services are a significant cause of the difficulties experienced by developing countries that are trying to expand exports. Reliance on a public sector TPO for services that are better carried out by private commercial enterprises has contributed to this neglect.

The box presents a sample of the typical negative characteristics of the worst TPOs, culled from the literature and from interviews. Although these characteristics are typical of the worst TPOs, they are extremely common in others as well. In our estimation, over half these characteristics are found in the great majority of developing country trade promotion organizations.

Six factors, in particular, have contributed to the ineffectiveness of the public service TPO model: the unsuitability of government employees to the task, the inflexibility of government procedures on expenditures and staffing, the confusion of purpose resulting from the assumption of regulatory and administrative roles, the perpetuation of wrong attitudes and strategies, misguided evenhandedness among potential export firms and producers that prevents a focused approach and limits the information given to potential importers, and the neglect of the development of commercial services.

Why some TPOs succeed

So what does work? The successful newly industrializing East Asian economies appear to have effective and financially efficient TPOs. All but one of these TPOs, however, were started more than a decade after the economy achieved fully satisfactory policies toward exports. Indeed, successful organizations were only set up after long experience by private service suppliers, private associations, and small units of government officials concerned with trade.

Most of the Organization for Economic Cooperation and Development (OECD) countries have generally satisfactory policies toward manufactured exports and also have TPOs, most of which are official. Typically, the central function of their TPOs is to provide trade-related information. But the impact of such TPOs on exports generally seems to be modest.

Both the successful East Asian economies and the OECD countries encourage private sources of information and specialized assistance whose services overlap those provided by official TPOs. Membership associations and chambers of commerce provide advice, training, and information to exporters, as do a wide variety of private service and financial firms. In OECD countries, the private services appear to be typically more important in practice than those of the TPOs.

Conclusion

As policy environments have improved and governments have become committed to somewhat more outward-looking policies, the organizations created earlier to promote exports have proved unsuitable for the needs that have emerged and have become an obstacle to the creation of new and better support services.

In presenting the results of our study, we have put forward recommendations on what works well in assisting exports through services. What developing countries need most to support exports at the firm level is for firms to have access to services—generally from private firms and consultants from more advanced countries—to compensate for their own limited expertise. This is critical not only for selling exports, but also for adapting production so that firms supply what foreign buyers want. ■

Educating Girls

Many social and economic conditions restrict educational opportunities for girls in the developing world. How can these hurdles be overcome?

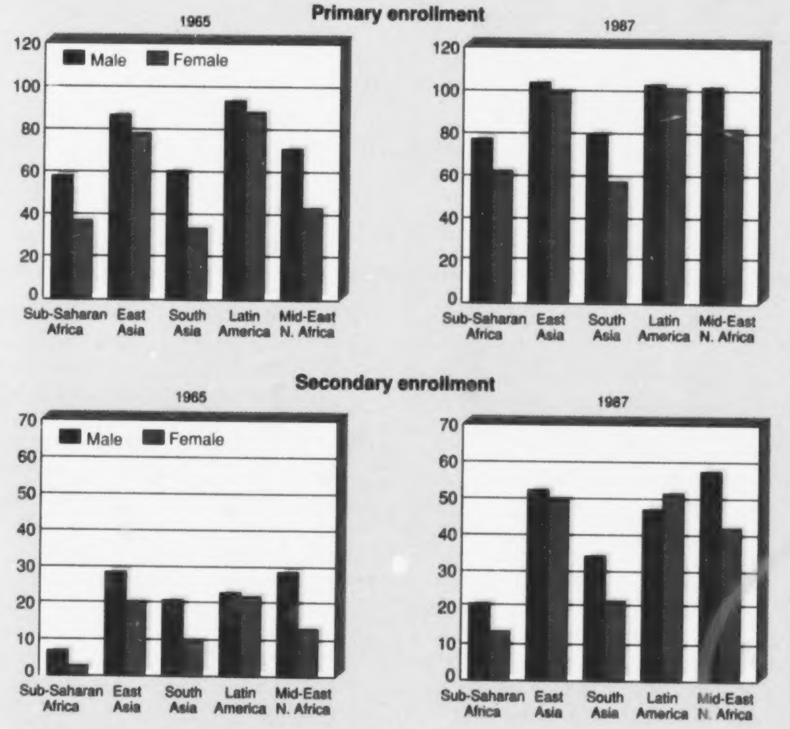
Rosemary Bellew, Laura Raney, and K. Subbarao
Population and Human Resource Department, The World Bank

The economic and social benefits of educating girls are substantial; the latter are on the whole probably greater than those for boys. Yet, paradoxically, both parents and society invest less in educating girls than in educating boys in most developing countries. This article outlines the nature of this "female education paradox," reviews the constraints to female education, and identifies promising approaches to increasing educational opportunities for girls.

The female education paradox

A wealth of research in the past 20 years has established that improving female education is crucial for development. Not only are the private economic returns to education, represented by the proportional increase in wages, substantial and generally as high for women as for men, but, more important, the benefits to society are striking. Research has convincingly shown that women's education contributes to smaller families. Educated parents have healthier children, and while the father's education has some influence on the children's health, the mother's education has far more. Analysis based on cross-country regressions shows that, controlling for all other factors, women's primary and secondary schooling contributes to fewer and healthier children. Moreover, the participation of educated women in the labor market and the ensuing incremental income growth is an important means of alleviating poverty. Recognizing these benefits, in his recent address to the Board of Governors at the 1991 Annual Meetings, Lewis Preston, President of the World Bank, underscored that investments in human resources, especially education for girls, "must have the highest priority."

Chart 1
Educational progress, by region, 1965 and 1987
(In percent)



Source: World Bank data.

During 1965–87, there was considerable progress in overall primary and secondary enrollments across the developing world. Female enrollment rates rose faster in secondary schools than in primary schools but their levels relative to those of boys remained low. Regional differences are also pronounced

---

This article draws on two complementary works produced in the World Bank's Population and Human Resources Department: "Letting Girls Learn: Promising Approaches in Primary and Secondary Education," by Barbara Herz, K. Subbarao, Masooma Habib, and Laura Raney (Bank Discussion Paper No. 133, September 1991); and "Women's Education in Developing Countries: A Review of Barriers, Benefits and Policy," edited by Elizabeth King and Anne Hill, PHREE Background Paper 91/41, September 1991, and forthcoming as a book from The Johns Hopkins University Press.

(see Chart 1). A large gender gap is evident in the Middle East, Sub-Saharan Africa, and South Asia. In Latin America, however, gender gap is nil or negligible except in Bolivia, Guatemala, and Haiti.

These regional averages tell only a part of the story. Data for individual countries show that even where enrollment rates rise, gender parity does not necessarily improve. Some countries have achieved gender parity in primary school at an average enrollment rate of about 60 percent, but there are many which did not do so even at an average enrollment rate of 80 percent. Disparities are even greater at the secondary level.

Research also shows that achieving a high per capita income does not necessarily guarantee gender parity, even if it brings about an expansion in enrollment (see Chart 2). At low levels of per capita income, female enrollment rates and parity vary the most. Some low-income countries achieved high enrollment rates for all children; some wealthier countries—particularly the oil exporters in the Middle East—did so mainly for boys. Even higher levels of public expenditure on education do not necessarily translate into greater gender parity in enrollments. Countries spending 3–4 percent of gross national income on education include best performers with high enrollment rates and high gender parity (e.g., Sri Lanka and the Republic of Korea) and worst performers with low enrollment rates and low gender parity (e.g., Liberia and Mali).

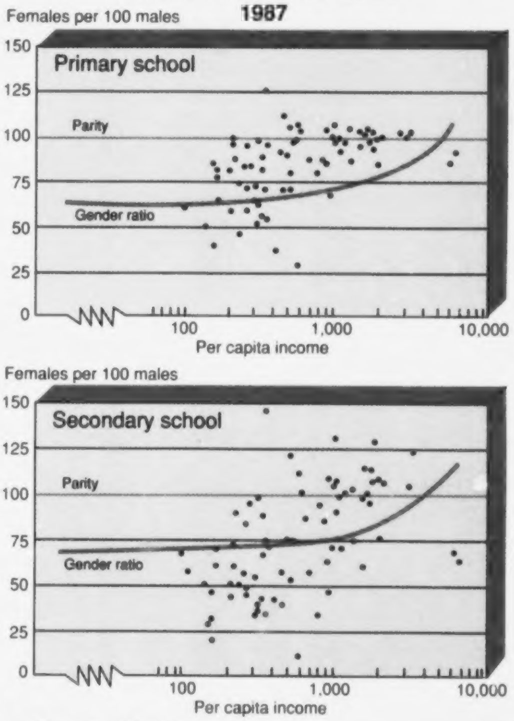
Constraints to female education

Why? The answer is that even where education is effectively free, the parents usually decide which of their children will go to school and for how long. Many parents in developing countries, especially poor parents with large families, feel that they cannot afford to send all their children to school, especially girls. Girls are often seen as household help. Parents bear not only the direct costs such as school fees, books, and clothing but, more important, also the opportunity costs, because they lose their children's time for household chores. In societies that allow children to be used as wage labor, parents also risk forfeiting wages of both boys and girls by sending them to school. However, careful time allocation studies have shown that in very poor agrarian economies, the economic contribution to the families—measured by the total time spent on paid and unpaid work as a whole—is typically much greater for girls than for boys. To this extent, parental decisions are more likely to be adverse to girls' schooling than to boys' schooling. Cultural traditions and concern for the safety of their daughters are also likely to affect a decision to send girls to school. In addition, the limited economic opportunities that especially affect girls' future earning capabilities hinder parental investment in girls' education.

Parents also see themselves bearing the costs of educating girls, but in many societies they see benefits accruing largely to the individual and her children. Girls "marry out," thus carrying the benefits of education with them, whereas sons are expected to sustain parents as they age. To parents, though not to society, investing in girls' education may seem less attractive than in boys' education. A vicious cycle ensues: Girls are kept home to help the family subsist day to day. Uneducated, they cannot compete with boys for wages when they grow up. Women end up earning less, making boys a better educational investment in the parents' eyes. This exacts a development cost in terms of lost opportunities to slow population growth and to raise incomes, productivity, and quality of life.

Chart 2

How a rise in per capita income affects female enrollment in LDCs 1987



Source: World Bank data.
Note: Income in dollars is plotted on a log-linear scale to allow a closer look at countries with lower per capita incomes.

Promising approaches

How does one break this cycle? Since society gains from girls' education, there is a strong case for special publicly financed measures to promote such education. Education policy is the most direct means of reducing the costs of girls' schooling and thus persuading more parents to educate their daughters.

Over the past two decades, a few developing countries have begun to adapt their educational systems to meet parental concerns better. They have designed incentives to attract both boys and girls to schools. But such societal commitment is not widely evident in the developing world.

Where actions have been taken to encourage girls' education, two broad sets of policies have been tried. One set motivates parents and compensates them for the costs of girls' schooling (e.g., through information campaigns and financial and other incentives). Another set increases access to education and improves the quality of schooling (e.g., by improving curricula and facilities).

Reducing costs. In combination with other measures, reducing the direct and indirect costs to parents of schooling has worked well in a number of countries to encourage them to send their children to school. In Korea, for example, compulsory education was combined with the waiving of fees, provision of free textbooks and school meals, and reduced uniform costs. Sri Lanka has offered free textbooks for all students, school feeding programs at the lower primary level, alternative school structures, and scholarships for students from needy families to supplement a policy of compulsory education. Evidence from Peru indicates that when free textbooks were supplied to primary schools, controlling for all other factors, girls were 1.3 times more likely to enroll, whereas no effect was recorded for boys' enrollment.

But special financial incentives may be required to persuade parents to educate girls. Because the net social gains from female education are most likely to exceed the private gains to the parents who pay, such incentives involving subsidies are economically justifiable. Scholarships at primary and secondary levels have proven to be very effective in raising girls' enrollment in Bangladesh and Guatemala. The scholarship program in Bangladesh has succeeded in almost doubling female secondary school enrollment—from 27.3 percent of eligible girls before the project, to 43.5 percent after its completion. The program has had other benefits as well: increased female attendance in primary schools, higher labor force participation, later age of marriage, and lower fertility rates.

Reducing the opportunity costs of the time girls spend attending school or preparing lessons can also improve girls' enrollment. For instance, flexible scheduling of school hours and the school calendar, to take into account girls' participation in household activities, has been introduced with favorable results in China and India. Provision of child care or permission to bring siblings to school is yet another option tried in some countries. Labor saving technology, improved and more accessible supplies of water and fuel wood, as well as better public transport can also obviate or facilitate girls' chores and make parents more willing to let them attend school.

Information campaigns, involving community leaders, appear to be an inexpensive and promising way to raise girls' primary enrollments. In Morocco, meetings are held in areas receiving new primary schools to sensitize community representatives and parents to the importance of girls' education.

Meeting parental concerns. Distance to school is an important parental concern and, therefore, a deterrent, more for girls than for boys. Parents are more reluctant to send girls than boys to distant schools. In Egypt, the location of a school within 1 kilometer of a community resulted in an enrollment rate of 94 percent for boys and 74 percent for girls; when the distance was 2 kilometers (km), boys' enrollment fell only slightly to 90 percent, while girls' enrollment plummeted to 64 percent. A project in Pakistan uses school mapping techniques to locate new schools in currently underserved areas. In the Sindh province, girls' primary schools will be located within 1.5 km. of a community compared with 2.5 km. for boys' schools.

A critical minimum of infrastructure, including separate sanitation facilities for girls, is also necessary. In certain areas, boundary walls around girls' or mixed schools may be culturally appropriate and help alleviate parental concerns for their daughters' safety. Experience also suggests that single-sex schools rather than coeducational schools may help to increase female enrollment and may improve girls' achievement and self-perception. Research from several countries shows that girls tend to perform better in a variety of subjects ranging from language to mathematics if they attend girls' schools, especially at the secondary level.

Current Bank-assisted projects in Bangladesh, Mali, and Pakistan provide for the revision of school texts to remove the portrayal of gender discrimination. Bangladesh, for example, is ensuring that positive role models are depicted in textbooks and that teacher training includes an awareness of gender issues to reflect the need to enhance the self-image of girls. In Nigeria and the Gambia, girls are actively encouraged to enroll in science, mathematics, and technical courses through the development of clubs and special incentives.

Evidence also suggests that the presence of female teachers encourages girls' enrollment. In rural areas, however, where there is a shortage of female teachers, innovative recruitment and teacher training schemes may be needed. Successful experimental programs in Yemen and Nepal have included a comprehensive mix of local recruitment and posting, tutoring, stipends, and transportation.

What broad lessons can be learned from this project experience? First, a "package approach" comprising a minimum combination of actions appears most promising. In very poor agrarian countries, girls typically face a broad range of constraints arising from the direct and opportunity costs to parents of their education. Education projects in such countries must have a range of components to address both the direct and opportunity costs of girls' education to parents. Some of the past and on-going Bank-assisted projects in The Gambia, Morocco, and Pakistan do make an effort to adopt this approach. Second, no matter what approach is taken to raise girls' enrollment, efforts should be made to simultaneously improve the quality and effectiveness of schools. Third, the community must be involved in all these efforts, especially when financial incentives are offered to parents. Fourth, incentives to overcome direct costs may involve subsidies, but these should be justified on economic and social grounds and carefully monitored to prevent misdirection of resources. Finally, in Bank-assisted projects, greater resources should go into monitoring and evaluation so that more is learnt about the cost effectiveness of alternative approaches in a given sociocultural setting.

Bank support for female education

Over 1972–80, there were 105 Bank-assisted primary and secondary education projects. Of these, about 20 percent identified the presence of gender issues, but only 10 percent included significant actions to improve female enrollment. The situation improved over 1981–91, with about half the Bank's education projects acknowledging gender issues and nearly a quarter including actions to encourage female enrollment.

More important than the quantitative change, however, has been the qualitative change in the nature of these projects. By and large, early Bank projects had a single aim: They typically concentrated on expanding school places. The results were disappointing. However, one early project in Bangladesh, which addressed parental attitudes reflecting both household-level and school-level constraints, had much more favorable results. This project combined a variety of components, such as improved school facilities, female teachers, reduced costs (free textbooks), and special incentives (e.g., scholarships). As a result, female enrollment improved 9 percent annually in project areas compared with only 2 percent in the country as a whole.

Many current Bank-assisted projects contain multiple components. For example, one project in Pakistan is providing boundary walls for girls' and mixed primary schools, free textbooks to rural primary school girls, scholarships for rural secondary schools, pilot programs to introduce flexible school hours and abolish uniform requirements, and amended age requirements and local posting for female teachers. Under a new project in Morocco, middle schools will be located close to targeted communities and have canteens to provide meals for students, with financial assistance available for students who cannot pay for their own meals. A program of low-cost textbooks is planned, and in the schools with boarding facilities, one half of boarding scholarships will be for girls. These and other current projects demonstrate the evolution of thinking in Bank projects and suggest the potential of the "package approach."

Conclusions

A substantial body of research has established that the economic and social returns to women's primary and secondary schooling are impressive. Yet, a significant gender gap in primary and secondary schooling persists in many countries. Given the economics of poverty and the traditions prevailing in much of the world, from the parents' perspective—though not from the society's—male education may understandably appear to be a better investment and female education a luxury they can ill afford. To create a more compelling case for parents' sending their daughters to school, policymakers should recognize the costs and benefits from the parents' perspective and incorporate suitable incentives in the project design. Though country-level project experience is too recent to draw firm conclusions, it certainly suggests the need for future projects to take an integrated view of the various constraints. Multiple economic and social spin-offs from female education in terms of lower poverty, reduced fertility, and mortality justify selective targeted subsidization of school inputs and scholarships for girls in education projects in poor countries. ■

BOOKS

Robert Z. Lawrence and Charles L. Schultze (editors)

An American Trade Strategy

Options for the 1990s

The Brookings Institution, Washington, DC, USA, 1990, vii + 234 pp., $128.95.

Jagdish Bhagwati

The World Trading System at Risk

Princeton University Press, Princeton, NJ, USA, 1991, viii + 156 pp., $16.95.

Alan Oxley

The Challenge of Free Trade

St. Martin's Press, New York, NY, USA, 1990, xi + 254 pp., $35.

Peter Morici (editor)

Making Free Trade Work

The Canada-US Agreement

Council on Foreign Relations Press, New York, NY, USA, 1990, vii + 182 pp., $17.95.

Trade issues might not fire the imaginations of the public at large, but they manage to provoke lively debate among writers on the subject. These books try to define an appropriate set of trade relations in a rapidly changing world. The broad post-war commitment to multilateralism, inspired largely by US leadership, is increasingly being called into question. As economic relations among countries become more complex, reaching far further than transborder flows of goods, regional integration efforts are now the focus of attention.

But the shift of emphasis away from multilateralism is not just geographical. It has also taken on a sectoral hue, and bilaterally based arrangements in such sectors as textiles, clothing, automobiles, electronics, steel, and agriculture have become important in defining trade relations between particular countries. The trade policy dialogue among academics is short on consensus, offering governments an unhelpful and bewildering array of choices. At the heart of all this discord is the tension between regionalism and multilateralism, between sectorally based market sharing and a rule-based trading system, between discrimination and nondiscrimination, and between managed trade and bureaucratic non-interference. The books reviewed here address these issues, offering a broad range of frequently competing views and prescriptions. These works are strong on advocacy, if not always on the analytical and factual underpinnings of their arguments.

The Lawrence and Schultze book, a Brookings conference volume, canvasses the full range of current views about the direction that US trade policy should be taking. The book contains three main papers, together with contributions from six discussants and commentators.

Anne Krueger argues the case for open multilateral trade, both on standard efficiency grounds and in terms of the contribution that free trade can make to the competitive environment faced by firms. She strongly rebuts the alternative prescriptions espoused by the two other principal authors, Rudiger Dornbusch and Laura D'Andrea Tyson, who argue for hands-on trade policy. Krueger's objections to managed trade rest on a combination of theoretical, informational, and political problems that arise when bureaucrats, at the behest of politicians, attempt to replace markets. Her arguments may not have the attraction of being new and fashionable, but they are sound and hard to challenge.

Dornbusch's approach is a mixture of bilateralism and aggressive unilateralism. His approach involves active bloc formation by the United States, and even more active pressure tactics against Japan, the latter being characterized by Dornbusch as a "basically closed economy." In Dornbusch's world, Japan would face sanctions if it failed to increase its imports from the United States at an average real rate of 15 percent per year for the next ten years. What is most extraordinary about the radicalism and insensitive nationalism of the policies proposed by Dornbusch is that he bills them as measures to arrest and roll back protectionism and to prevent the emergence of restrictive trade blocs. In other words, aggressive actions based on unilaterally defined criteria are supposed to be supportive of an open nondiscriminatory trading system.

Tyson's case for trade policy intervention is much more industry specific than Dornbusch's. Tyson targets high technology industries, along the lines of what the United States has already attempted with microchips (antidumping, minimum prices, and a reluctant commitment to an expansion of imports by Japan). The problems with this kind of approach are well known. Whose special case pleading should be accommodated? Which industry is strategic, and what about the domestic users of the output of protected strategic industries (such as computer manufacturers in the microchip case)? More broadly, real doubt exists as to the capacity of the United States to run any kind of systematic industrial policy that, given the US political system, could possibly avoid capture by special interest groups. We are further reminded by Avinash Dixit in his comments as discussant that even if the spillover arguments warranted protection for high technology industries, optimal intervention theory establishes that this is not a justification for trade measures.

Jagdish Bhagwati's book on the world trading system is in the same vein as his excellent 1988 work on the subject of protectionism. The author once again demonstrates his rare ability to convey complex ideas in a readable and entertaining manner. His book offers a direct and powerful challenge to many of the premises underlying the prescriptions of managed trade advocates.

Bhagwati discusses how "unfair" trade arguments have been used to bolster demands for managed trade and to justify unilateral departures from the multilateral rule-based system by the major trading countries. This analysis provides the backdrop to Bhagwati's diagnosis of the actual and potential threats facing the General Agreement on Tariffs and Trade (GATT) trading system. An important part of the story is the resurgence of regionalism. His discussion of regional trade agreements is tinged with agnosticism, presumably because whether regionalism proves hostile to multilateralism is essentially an empirical question. Bhagwati does, however, spell out criteria designed to ensure that the GATT system survives the new reigonalism.

Finally, Bhagwati devotes some useful space to exposing the high level of misinformation that abounds about what the GATT actually is and what it does. In the process, he cannot resist mentioning Sir Dennis Robertson's characterization of a brilliant economist who strayed into the policy arena as "silly-clever"—that is, technically and formally clever, but silly when it comes to ill-informed policy prescriptions.

Alan Oxley's book is a welcome addition to the literature. It is the best and most readable account currently available of the broad range of issues the GATT is trying to address and how the GATT process actually works. It comes from a trade policy practitioner who, as Australia's Ambassador to the GATT in Geneva, spent nearly five years at the center of the action in one of the most eventful periods of the GATT's history. Oxley's book combines the story of what was actually going on in the preparatory and early stages of the Uruguay Round with a serious substantive analysis of the challenges facing the GATT system and why it is important to meet them.

Oxley's entertaining narrative does not conceal the frustrations of trying to secure meaningful commitments on a multitude of issues among many (more than 100) countries. If something is missing from this book, it is an analysis of what needs to be done to make the GATT process more workable. Apart from the substance of differences that divide countries, one cannot help asking after reading Oxley's book whether part of the problem is not a failure of process. A book like this one inevitably suffers from the fact that it deals with fast moving events, but its central message about the risks of policy failure at the multilateral level is strengthened by what has not come to pass (the completion of the Uruguay Round) since the book was published.

The seven essays in Peter Morici's book examine various aspects of the Canada-US free trade agreement (FTA). Again, the book has been quickly dated by events. The prospect of a North American FTA including Mexico, and President Bush's Enterprise of the Americas Initiative, confound more than one prediction made in the book. Nevertheless, the work is useful as an introduction to the extraordinarily broad array of issues that the FTA seeks to address. One theme that keeps coming through is the incompleteness of the FTA as it currently stands.

Michael Aho, in his foreword to the book, offers a notably strong repudiation of FTAs, from which he is only willing to exempt the "special cases" of a North American FTA (including Mexico) and the European Community. A succession of other FTAs, he argues, would be a recipe for "RIBS—resentment, inefficiency, bureaucracy and silly signals." The same should be said more generally of protectionist departures from the GATT system of multilateral trade disciplines.

Patrick Low

David Laidler

Taking Money Seriously

The MIT Press, Cambridge, MA, USA, 1990, xiv + 226 pp., $27.50.

David Laidler has set himself a fascinating if daunting task in writing these essays: to explain to a general audience why, in the face of the collapse of monetarism, one should continue to care about money and monetary policy. He does not take the easy path of denying the collapse of a body of thought of which he had once been considered a champion. Rather, he acknowledges at the outset that both of monetarism's pillars were built on weak foundations. One pillar—the money-demand function—has proved to require more and more reinforcement over time to keep it from crumbling under the weight of financial innovations. The other pillar—the expectations-augmented Phillips curve—seems solid enough, but it supports an odd conclusion, namely that money has only limited real effects. Monetarism thus seems to mean little more than the obvious: that inflation and money growth are statistically related in the long run.

Why, then, should we take money seriously? Throughout the past half dozen years—when most of these essays were written—Laidler has argued that Walrasian economics is incomplete because it omits the central role of money in promoting and organizing exchange. In the real world, there is no auctioneer who conveniently calls out prices until demand matches supply. Instead, exchange takes place on the basis of incomplete and constantly changing information, and individuals hold money in order to take advantage of news as it develops. Without money, exchange would not just be marginally more costly, it would be organized in a fundamentally less efficient manner. Control over the supply of money so as to stabilize the aggregate price level and promote the efficiency of exchange is a critical determinant of macroeconomic performance.

Laidler's views on the international role of money are rather more controversial, as he takes a strong stand advocating flexible exchange rates: "There seem no circumstances in which, for the point of view of domestic policy, there are any advantages from fixed rates" (p. 167). His context is Canada, but he treats the argument as being generally valid. He envisions a central bank that wishes to gain autonomy in order to pursue an anti-inflationary policy but that is prevented from doing so by the need to maintain a fixed exchange rate against a less stable currency. That, however, has not been the prevailing paradigm of the 1980s. Rather, it has often been the less-disciplined authorities who have fallen back on exchange rate depreciation to compensate for past (or even continuing) excesses, with at best mixed benefits for macroeconomic stability. The argument is nonetheless thought-provoking, clearly presented as are all of Laidler's ideas, and, well worth taking seriously.

James M. Boughton

Karen A. Mingst

Politics and the African Development Bank

University Press of Kentucky, Lexington, KY, USA, xii + 204 pp., 1990, $26.

At one level, this book is a comprehensive, although sometimes oddly organized, summary of the African Development Bank (ADB)—its origins, history, and structure. The author provides details on membership, voting structure, the internal decision-making process, its organization chart, salaries and fringe benefits of staff, the lending process, and types of lending. At another level, some of this information is related to the "political" aspects of the institution.

The author's underlying thesis is that while all of the multilateral development banks (MDBs) "have, since their founding embraced the functionalist logic that technical economic questions could be separated from political questions," these institutions, in fact, are subjected to a multitude of political influences, which are reflected in the behavior of the organizations. Thus, ADB is also a political institution, not the economically neutral institution originally envisioned. But in this respect is ADB merely reflective of the other, more senior MDBs, or is it more or less politicized? On this point the book is not always clear.

In her discussion of politics and the ADB the author deals with a wide range of "political" issues, including internal politics (what might be called bureaucratic infighting or turf-wars); inter-organizational politics (relationships between the ADB and the World Bank, the IMF, the Economic Commission for Africa (ECA), the Organization of African Unity (OAU), and other African and international organizations); attempts by the owners of the Bank to exert influence on its actions and policies (ranging from staffing, procurement under ADB loans, sectoral and country distribution of lending, and quality of the loan evaluation process to attempts to guide the underlying policies and philosophy of the Bank); and, finally, attempts by ADB to influence the development strategies of its borrowers. All of these are taken up in some detail, if not always in sufficient analytical depth. In particular, I would have welcomed more attention to the last theme.

The author points out a number of constraints that have limited the ADB's effectiveness in working with other organizations and in influencing the policies of its borrowers. These include smaller and weaker staff, transportation and communications problems in Africa, the variety and instability of African regimes (it is not made clear why these latter factors should influence ADB more severely than other institutions working in Africa), and "lack of a clearly enunciated theory of economic development." On this last point the author argues that ADB has tried to steer a middle course between private sector-led and state-led development, but finds that "it is unclear whether the lack of a specified theory of economic development hinders or facilitates ADB interactions with member states"—hardly a satisfying conclusion! The author, however, does briefly acknowledge the growing emphasis paid to the private sector's role by President N'Diaye and to ADB's increasing involvement in structural adjustment lending with the World Bank.

The discussion of ADB's growing role in policy analysis and dialogue with member states, the increased application of project, sector, and macroeconomic conditionality, and ADB's contribution to the growing debate on the internal and external economic environment of Africa (trade, aid, debt, domestic economic management, and governance) is the least developed part of the book. I would have wished for more emphasis on the widespread political debate in Africa over structural adjustment, or economic reform in general, as well as political reform and the evolving role of the ADB in these significant "winds of change" now sweeping across Africa. In her effort to deal with every facet of ADB, both political and nonpolitical, the author has provided too diluted and diffuse a picture of the ADB to permit a clear focus on its present and likely future role of Africa.

Stephen O'Brien

Azizur Rahman Khan and Rehman Sobhan (editors)

Trade, Planning and Rural Development

St. Martin's Press, New York, NY, USA, 1990, viii + 236 pp., $49.95.

This book is a collection of 14 papers written in honor of Nurul Islam, a distinguished economist, administrator, and international civil servant from Bangladesh. The contributors include some of the profession's most widely read trade theorists and development economists. However, the editors have not taken the care to steer these papers in a particular direction or theme. The result is a random compilation of papers that vary greatly in quality—from highly elegant theoretical approaches to very general and descriptive presentations.

The papers in Part 1 greatly enrich our understanding of the utility of, and the limits to, trade and aid policies. Jan Tinbergen demonstrates elegantly the practical utility of a "parabolic welfare function" that encompasses satiation and oversatiation as a criteria for allocation of development assistance for different countries. Adoption of such criteria should obviate the dangers of donor countries influencing recipient country's national policies. W. Haque's theoretical piece on trade theory seeks to establish the relationships between tariff rates and the conditions of home and foreign demand. Jagdish Bhagwati analytically separates various forms of rent-seeking from one another, and argues that it is imperative to distinguish policy-influencing DUP (directly unproductive activities) from policy-triggered DUP activities. Paul Streeten's essay summarizes the considerations why the theory of comparative advantage forms an insufficient basis for either predicting or recommending free trade.

Part II discusses several issues in the area of planning, but in a rather disjointed way. Dharam Ghai's analysis of participatory approach to development is illustrated with nine interesting grassroots initiatives, but as the author himself notes, most of them have charismatic leadership behind their success. Saburo Okita shows that while Japan was never a planned economy, government intervention, unlike in some developing countries, supplemented rather than supplanted initiatives. A.R. Khan's argument that social cost-benefit analysis cannot explain the irrationality of investment decisions without a political economic framework is much too general; one could argue that every other analytical tool is also subject to similar limitations.

Finally, Part III touches upon aspects of rural development. Gustav Ranis draws attention to the importance of spatial dimensions in understanding the inter-sectoral linkages in development. His analysis of public policy options, however, is based exclusively on the now familiar outward-looking East Asian experience. The papers by David Mellor and Mark Leiserson present contrasting views on the role of policy. Mellor, while stressing agricultural trade, presents a very balanced view of the role of technology, human capital, and infrastructural investments in promoting cost-reducing technological change in agriculture, and argues for the need to adopt a broader strategy to deal with the threat of production instability to achieve sustained reduction in poverty. By contrast, Leiserson presents the usual simplistic prescription that the issues surrounding food self-sufficiency need to be addressed in the context of striking a balance between external and domestic sectors so as to ensure a more efficient development path. The last two papers, though specific to Bangladesh, deal with issues crucial to that country—foodgrain pricing policy and education.

K. Subbarao

BOOKS *in brief*

Michael Bruno, Stanley Fisher, Elhanan Helpman, and Nissan Liviatan with Leora (Rubin) Meridor (editors)

Lessons of Economic Stabilization and its Aftermath

The MIT Press, Cambridge, MA, USA, 1991, vii + 423 pp., $30.

In the next decade, as the East European countries and developing nations attempt to reform and modernize their economies, they will focus on stabilization and reconstruction. The studies in this volume are instructive, since they distill the stabilization experiences of eight countries: Argentina, Brazil, Bolivia, Chile, Israel, Mexico, Turkey, and Yugoslavia. Throughout the 1980s, most of these countries suffered from high levels of inflation, largely due to external shocks and mounting debt. Their strategies to control inflation and to achieve economic stabilization have met with different levels of success. This volume reviews the reasons why.

Dharam Ghai (editor)

The IMF and the South

The Social Impact of Crisis and Adjustment

Zed Books, London, England, [Atlantic Higlands, NJ, USA], 1991, xi + 273 pp.,£32.95/$55 (£11.95/$19.95 paper).

This collection of "alternative" views of the economic problems of developing countries and the economic adjustment process lays greater stress on external factors than domestic ones as a cause of the economic plight of the "South." It contains case studies from Africa and Latin America. Even when the authors recognize domestic problems, such as centralized planning, nondemocratic economic and political systems, and misallocation of resources, these are either ignored or given lesser weight than external conditions, such as industrial country policies, in analyzing the causes of economic difficulties. The polemics interfere with the analysis, making this book less valuable than it might otherwise have been as a study of the relationship between multilateral financial institutions and developing economies.

Robert F. Emery

The Money Markets of Developing East Asia

Praeger, New York, NY, USA, 1991, xvii + 340 pp., $65.

With the focus very much these days on emerging capital markets in various parts of the world, this book should prove a valuable resource to international finance executives, economists, and policymakers alike. The author, an East Asian specialist at the Federal Reserve Board, takes a look at the money markets (primarily domestic) of Hong Kong, Indonesia, the Republic of Korea, Malaysia, the Philippines, Singapore, Thailand, and Taiwan Republic of China—the major players (outside Japan) in the region. After an introductory overview, he analyzes the strengths and weaknesses of each individual market, and identifies the main participants, the nature of the instruments used, the size of the market, and any official influences. The book closes with some cross-country comparisons. The final chapter indicates what lessons can be derived and basic ingredients for developing a viable and growing money market.

Other Books Received

Listed below are some of the books we received in 1991 but were unable to review because of lack of space.

Ehtisham Ahmad, Jean Drèze, John Hills, and Amartya Sen (editors) **Social Security in Developing Countries**, Oxford University Press, New York, NY, USA, 1991, viii+ 477 pp., $98.

George Alogoskoufis, Lucas Papademos, and Richard Porter (editors), **External Constraints on Macroeconomic Policy: The European Experience,** Cambridge University Press, New York, NY, USA, 1991, xi + 384 pp., $59.50.

V.N. Balasubramanyam and Sanjaya Lall (editors), **Current Issues in Development Economics**, St. Martin's Press, New York, NY, USA, 1991, vii + 287 pp., $49.95.

Stephen Browne, **Foreign Aid in Practice**, New York University Press, New York, NY, USA, 1990, viii + 283 pp., $63.78.

David W. Conklin, **Comparative Economic Systems: Objectives, Decision Modes, and the Process of Choice**, Cambridge University Press, New York, NY, USA, 1991, vii + 417 pp., $59.50 ($24.95 paper).

Sebastian Edwards and Alejandra Cox Edwards, **Monetarism and Liberalization: The Chilean Experiment**, University of Chicago Press, Chicago, IL, USA, 1991, xix + 249 pp., $13.95 (paper).

Uma Lele and Ijaz Nabi (editors), **Transitions in Development: The Role of Aid and Commercial Flows**, International Center for Economic Growth, San Francisco, CA, USA, 1991, vii + 535 pp., $34.95.

Daniel Slohje, Gerald Scally, Joseph Hirschberg, and Kathy Hayes, **Measuring the Quality of Life Across Countries: A Multi-Dimensional Analysis**, Westview Press, Boulder, CO, USA, 1991, vii + 278 pp., $39.95.

Kendall W. Stiles, **Negotiating Debt: The IMF Lending Process**, Westview Press, Boulder, CO, USA, 1991, ix + 214 pp., $32.50.

Human Development Report 1991, United Nations Development Programme, Oxford University Press, New York, NY, USA, 1991, vii + 202 pp., $15.95.

LETTERS

Growth and development

William Easterly's article, "Economic Policy and Economic Growth" (*Finance & Development*, September 1991) is a very well-reasoned and written article. Nevertheless, the thesis, as well as the growth concept used, deserve examination.

The article employs the common practice of using "per capita growth" and "per capita GDP growth" as representative of economic growth. If one accepts that development is embodied in the distribution of output/income, then per capita output/income growth is the most readily available and usable proxy of development, but not of growth, which total output (i.e., economic) growth represents well. This distinction is important given the fact that while many LDCs have experienced growth during the past three decades, few have also experienced development. Côte d'Ivoire, for example, has undergone significant growth, but per capita income has grown insignificantly; the reverse holds in the case of Burkina Faso.

Easterly argues for long-run growth through increasing production capacity (like virtually the entire literature). But the economic growth challenge of developing countries is primarily short term—that is, how to generate more output from the existing, usable production capacity. The most realistic and feasible strategy for meeting this challenge is the removal of constraints on market allocation of scarce production supplies, as well as institutional and infrastructural services, since this would enable greater utilization of existing capacity. Once capacity is utilized more efficiently, an LDC will have created the necessary condition for longer-term "self-sustaining" growth.

In fact, the structural adjustment programs—the economic restructuring—being undertaken in LDCs with the support of the World Bank and the IMF have had the effect primarily of increasing capacity utilization. But the framework and theory that describes this phenomena, which would enhance the teaching and understanding of growth and development, is missing.

Kwamena Essilfie Adjaye
Resident Scholar, George Washington University
Washington, DC, USA

Mr. Easterly replies:

I agree with Mr. Adjaye that increased utilization of existing productive capacity through more efficient resource use can be a significant source of higher output in the short run. However, I would argue that efficient resource use acts even more powerfully by raising the growth of productive capacity in the long run. Increased efficiency frees up resources that can be reinvested in ever-rising production and consumption. The efficient operation of markets—and the provision of infrastructure services that Mr. Adjaye mentions—also make the private sector want to invest more. The effect on the growth rate is more important for long-run welfare than the one-time increases in output that Mr. Adjaye discusses.

Caution on military debts

The article "Military Expenditures in the Developing World" (*Finance & Development*, September 1991) by Daniel P. Hewitt, and the companion piece by Robert S. McNamara, underscore the subversion of economic development caused by purchases of military equipment by less developed countries threatened by no other country. What is not brought out with sufficient force is the cost that many of these purchases impose on the governments—and therefore the taxpayers—of the supplying industrialized countries.

Within the last year, the US Government has forgiven the debt incurred in buying military equipment by both Egypt and Senegal, hence transferring the burden of repayment to the American taxpayers. Surely it would make more sense for governments not to participate in these transactions, so that in the event of nonpayment it is the weapons manufacturer who bears the burden. While it is true that such losses may become tax deductions for the manufacturers, and therefore borne by the public, it might encourage the manufacturers to assess more carefully their overseas buyers' creditworthiness before shipment. Although military exports help the trade balance, unless they are paid for, they provide no benefit to the balance of payments. Obviously, this is as true for other industrialized countries as it is for the United States, many of which are experiencing budgetary constraints.

A two-step proposal would have the United Nations serve as a clearing point for developing countries' weapons purchases, and include such merchandise in the understandings of the Export Credits Group of the Organization for Economic Cooperation and Development, with the proviso that there be no mixed credits for such transactions.

Albert H. Hamilton
Arlington, VA, USA

Voice of experience

After reading Robert McNamara's article on "Reducing Military Expenditures in the Third World" (*Finance & Development*, September 1991), I cannot conceal the fact that I was pleasantly surprised by the statements of the author, who speaks with the voice of experience in the two areas involved—military and financial power.

Having lived for half a century in Argentina—a country in which the military has been idolized—the truth of what Mr. McNamara says comes as no surprise. Our burgeoning external and internal debt arose, to a large extent, under military governments, leaving our people virtually unprepared for a democratic government. It is refreshing to read views which depart from the area of strictly technical studies to deal directly with national life and progress, especially in the poorest and neediest countries.

Nicolas Pavicich
Rosario, Argentina

Statement of Ownership, Management, and Circulation required by 39 USC 3685.

1a. Title: *Finance & Development*. 1b. Publication No. 123-250. 2. Date of filing: 9/17/91. 3. Frequency: Quarterly.
4. Complete mailing address of known office of publication: *Finance & Development*, International Monetary Fund, Washington, DC 20431.
5. Complete mailing address of the headquarters of general business offices of the Publisher: International Monetary Fund and the International Bank for Reconstruction and Development, Washington, DC 20431.
6. Full names and complete mailing address of Publisher and Editor: Publisher: International Monetary Fund and International Bank for Reconstruction and Development, Washington, DC 20431; Editor: Shuja Nawaz, same address.
7. Owner: International Monetary Fund and the International Bank for Reconstruction and Development, Washington, DC 20431.
8. Known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of the total amount of bonds, mortgages, or other securities: None.

9. Extent and nature of circulation	Average no. of copies each issue in preceding 12 months	Actual no. of copies of single issue published nearest to filing date
A. Total no. of copies	57,000	55,000
B. Paid and/or requested circulation	—	—
C. Total paid and/or requested circulation	44,278	41,763
D. Free distribution by mail, carrier or other means		
Samples, complimentary and other free copies	11,777	12,568
E. Total distribution (sum of C and D)	56,055	54,331
F. Copies not distributed	945	1,669
G. Total (sum of E and F)	57,000	55,000

I certify that the statements made by me above are correct and complete.

Shuja Nawaz, Editor

Cover art: Eric Westbrook. Art on pages 6, 10, and 19: David Wisniewski; pages 22, and 27: Eric Westbrook. Cover for CGIAR and art on page 35: Phil Torsani. Composition: Luisa Watson and IMF Graphics Section. Charts: IMF Graphics Section. Bank photos: M. Iannacci. IMF photos: D. Zara and Padraic Hughes-Reid.

We welcome comments from our readers

Please write to:
Editor, *Finance & Development*,
International Monetary Fund,
Washington, DC 20431 USA

Six World Bank Reference Guides Give Users Detailed, Reliable Statistics

World Tables 1991

New, expanded edition is the most detailed collection of economic data published by the Bank. Standardized data make this an ideal reference for international comparisons.

☐ *655 pages / ISBN 0-8018-4252-2 / Order Stock #44252 / US$35.95*

Trends in Developing Economies

Recent economic performance of over 100 developing economies – arranged alphabetically for easy reference – is assessed in this third edition of the World Bank's newest annual statistical series. Unlike other annual statistical compilations published by the Bank – this volume includes a textual description of current economic and social conditions in each country.

☐ *624 pages / ISBN 0-8213-1922-1 / Order Stock #11922 / US$25.95*

World Development Report 1991

This fourteenth edition is the Bank's most widely circulated publication. It includes the World development Indicators – more than 30 statistical tables on economic and social development. It also offers an overview of trends in the world economy and in-depth analysis of topics of interest to the development community.

☐ *English hardcover ISBN 0-19-520869-2 / Order Stock #60869 / US$32.95*

☐ *English paperback ISBN 0-19-520868-4 / Order Stock #60868 / US$16.95*

World Debt Tables 1991-92

Compiled from information gathered through the World Bank's exclusive Debtor Reporting System, this annual provides detailed data on the debt of developing countries.

☐ *Volume 1. Analysis and Summary Tables 193 pages / ISBN 0-8213-1971-X / Order Stock #11971 / US$16.95*

Volume 2. Country Tables 508 pages / Not sold separately

☐ *Complete two-volume set with supplements ISBN 0-8213-1984-1 / Order Stock #11984 / US$125.00*

Social Indicators of Development 1990

This edition has been substantially reorganized and expanded to provide a clearer picture of the social effects of economic development and to assess human welfare.

☐ *374 pages / ISBN 0-8018-4159-3 / Order Stock #44159 / US$24.95*

The World Bank Atlas 1991

Now in its twenty-fourth edition, The World Bank Atlas has become an international standard in statistical compilations. In addition to a statistical table, it includes colorful and easy-to-read world maps, tables, and graphs. Text is in English, French, and Spanish.

☐ *28 pages / ISBN 0-8213-1977-9 / Order Stock #11977 / US$7.95*

Send for your copies of these valuable reference materials. Simply complete the coupon below and return it now.

☐ I want to order the titles I have ticked above.

☐ I am interested in learning more about these annual statistical publications. Please send me immediately the information pamphlet *World Bank Statistics* – which includes information on data on diskette. I understand that this also includes information about three additional reference guides: *African Development Indicators, Price Prospects for Major Primary Commodities 1990-2005,* and *The Development Data Book* classroom set for secondary schools. Mail to: World Bank Publications, Office of the Publisher, Room T8055, 1818 H Street, NW, Washington, DC 20433.

Name ______________________________

Address ______________________________

City/State ____________________ Postal Code/Country ____________

Customers who send payment or charge with a credit card should add $3.50 shipping and handling. Those institutions ordering with a purchase order will be charged actual shipping and handling charges.

☐ Enclosed is my check for US$ __________ payable to World Bank Publications.

☐ Charge my ☐ VISA ☐ MasterCard ☐ American Express ☐ Eurocard

(American Express accepted only for orders to Washington, D.C. Eurocard accepted only for orders to Paris.)

Credit Card Number ____________________ Expiration Date __________

Signature ______________________________

☐ Please bill me (institutional customers only) ____________________

Include purchase order or list order number

Coupon orders accepted only from the U.S.A. and France. To order from other countries, request a list of World Bank Publications Distributors. Prices vary by country.

In the U.S. return the coupon to:
World Bank Publications
P.O. Box 7247-8619
Philadelphia, PA 19170-8619

In France return the coupon to:
World Bank Publications
66, avenue d'Iéna
75116 Paris, France